55PP9701
60PP9701

Instructions for use:

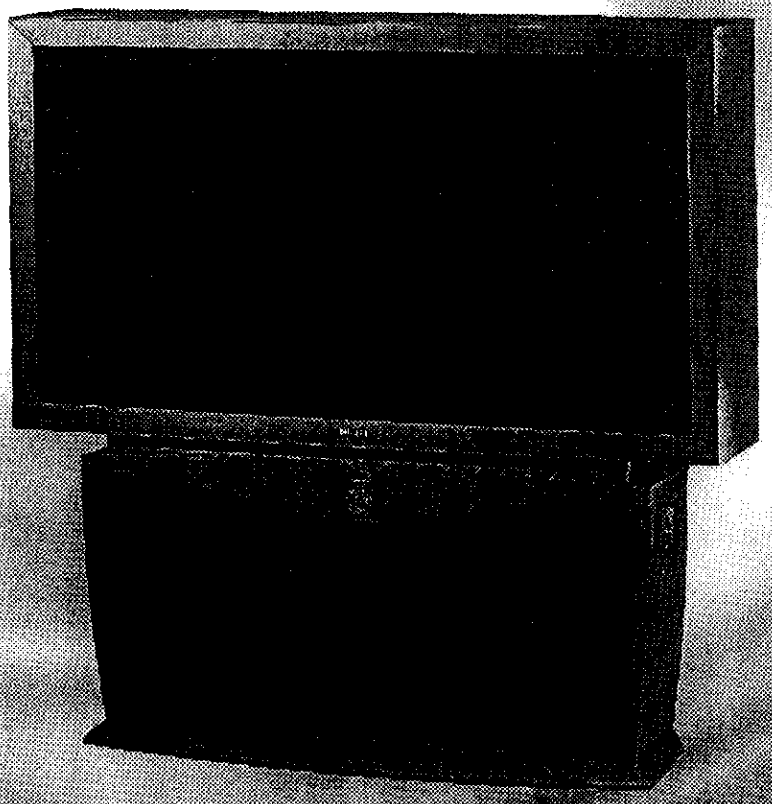
- *Digital High Definition (maximum display resolution 1500x1080i)*
- *Dual Tuner PIP*
- *APAC (automatic phosphor aging compensation)*
- *Display Format Conversion Modes*
- *Universal Remote Control*
- *GUIDE Plus+® (electronic program guide)*

REAL HDtv

GUIDEplus+ GOLD

APAC

PIXELMAX



Let's make things better.

PHILIPS

3135-015-21401

Return your Warranty Registration card today to ensure you receive all the benefits you're entitled to.

Once your PHILIPS purchase is registered, you're eligible to receive all the privileges of owning a PHILIPS product. So complete and return the Warranty Registration Card enclosed with your purchase at once. And take advantage of these important benefits.

•Warranty Verification

Registering your product within 10 days confirms your right to maximum protection under the terms and conditions of your PHILIPS warranty.

•Owner Confirmation

Your completed Warranty Registration Card serves as verification of ownership in the event of product theft or loss.

•Model Registration

Returning your Warranty Registration Card right away guarantees you'll receive all the information and special offers which you qualify for as the owner of your model.

Congratulations on your **purchase,** and welcome to the **"family!"**

PHILIPS

Dear PHILIPS product owner:

Thank you for your confidence in PHILIPS. You've selected one of the best-built, best-backed products available today. And we'll do everything in our power to keep you happy with your purchase for many years to come.

As a member of the PHILIPS "family," you're entitled to protection by one of the most comprehensive warranties and outstanding service networks in the industry.

What's more, your purchase guarantees you'll receive all the information and special offers for which you qualify, plus easy access to accessories from our convenient home shopping network.

And most importantly you can count on our uncompromising commitment to your total satisfaction.

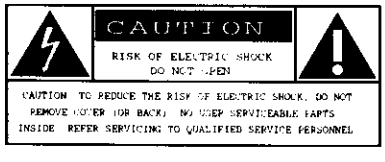
All of this is our way of saying welcome–and thanks for investing in a PHILIPS product.

Sincerely,

Robert Minkhorst
President and Chief Executive Officer

P.S. Remember, to get the most from your PHILIPS product, you must return your Warranty Registration Card within 10 days. So please mail it to us right now!

Know these **safety** *symbols*


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT
REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS
INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL

⚠ This "bolt of lightning" indicates uninsulated material within your unit which may cause an electrical shock. For the safety of everyone in your household, please do not remove product covering.

⚠ The "exclamation point" calls attention to features for which you should read the enclosed literature closely to prevent operating and maintenance problems.

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: To prevent electric shock, match wide blade of plug to wide slot, and fully insert.

ATTENTION: Pour éviter les chocs électriques, introduire la lame la plus large de la fiche dans la borne correspondante de la prise et pousser jusqu'au fond.

SAFETY INSTRUCTIONS - Read before operating equipment

This product was designed and manufactured to meet strict quality and safety standards. There are, however, some installation and operation precautions which you should be particularly aware of.

1. **Read Instructions** - All the safety and operating instructions should be read before the appliance is operated.
2. **Retain Instructions** - The safety and operating instructions should be retained for future reference.
3. **Heed Warnings** - All warnings on the appliance and in the operating instructions should be adhered to.
4. **Follow Instructions** - All operating and use instructions should be followed.
5. **Water and Moisture** - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement or near a swimming pool, etc.
6. **Carts and Stands** - The appliance should be used only with a cart or stand that is recommended by the manufacturer.

6A. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

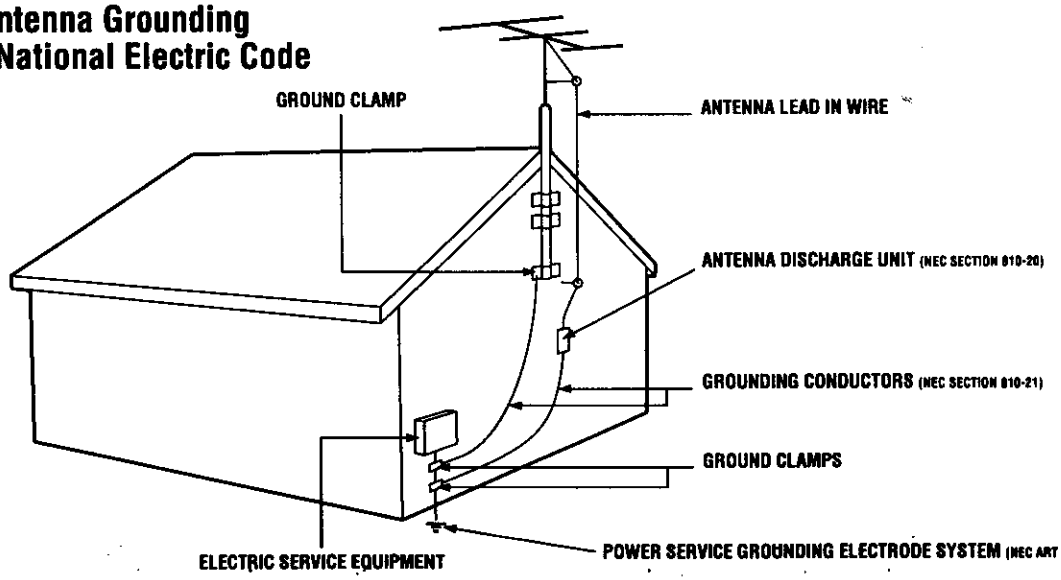
6B. **Tilt/Stability** - All televisions must comply with recommended international global safety standards for tilt and stability properties of its cabinet design.
- Do not compromise these design standards by applying excessive pull force to the front, or top, of the cabinet which could ultimately overturn the product.
- Also, do not endanger yourself, or children, by placing electronic equipment/toys on the top of the cabinet. Such items could unsuspectingly fall from the top of the set and cause product damage and/or personal injury.

7. **Wall or Ceiling Mounting** - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
8. **Ventilation** - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
9. **Heat** - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
10. **Power Sources** - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
11. **Power-Cord Protection** - Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.
12. **Cleaning** - The appliance should be cleaned only as recommended by the manufacturer.
13. **Power Lines** - An outdoor antenna should be located away from power lines.
14. **Outdoor Antenna Grounding** - If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges.

    Section 810 of the National Electric Code, ANSI/NFPA No. 70-1984, provides information with respect to proper grounding of the mats and supporting structure grounding of the lead-in wire to an antenna discharge unit, size of grounding connectors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See Fig. below.
15. **Non-use Periods** - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.
16. **Object and Liquid Entry** - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
17. **Damage Requiring Service** - The appliance should be serviced by qualified service personnel when:
    - **A.** The power supply cord or the plug has been damaged; or
    - **B.** Objects have fallen, or liquid has been spilled into the appliance; or
    - **C.** The appliance has been exposed to rain; or
    - **D.** The appliance does not appear to operate normally or exhibits a marked change in performance; or
    - **E.** The appliance has been dropped, or the enclosure damaged.
18. **Servicing** - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Note to the CATV system installer: This reminder is provided to call the CATV system installer's attention to Article 820-40 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

Example of Antenna Grounding as per NEC - National Electric Code


GROUND CLAMP
ANTENNA LEAD IN WIRE
ANTENNA DISCHARGE UNIT (NEC SECTION 810-20)
GROUNDING CONDUCTORS (NEC SECTION 810-21)
GROUND CLAMPS
ELECTRIC SERVICE EQUIPMENT
POWER SERVICE GROUNDING ELECTRODE SYSTEM (NEC ART 250, PART H)

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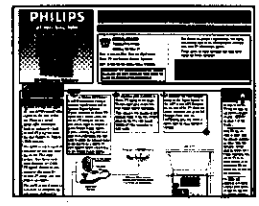
SET-UP AND QUICK USE GUIDE

Use the simple Set-Up Guide (supplied with your TV information packet) for details on:

- Antenna Hook-ups
- First Time Set-Up (Automatic Settings)
- Basic TV and Remote Control Operation
- On-Screen Menu Use



NOTE: This owner's manual is used with several different television models. Not all features (and drawings) discussed in this manual will necessarily match those found with your television set. This is normal and does not require you contacting your dealer or requesting service.

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FEATURES

First Time Set Up - automatically sets the TV for local channels, the correct picture signal (antenna or cable), and assists in the setting of TV's Guide Plus+ feature.

Infrared Remote Control - operates your TV set and a variety of wireless remote control VCRs, Cable TV Converters, and other accessory equipment.

Standard TV broadcast (VHF/UHF) or Cable TV (CATV) channel capability as well as advanced connectivity for high definition video and VGA.

Closed Captioning - allows the viewer to read TV program dialogue or voice conversations as on-screen text.

Automatic Programming of channels - for quick and easy selection of favorite stations available in your area.

Picture-In-Picture (PIP) - can show a TV program and the direct video output from an accessory (VCR, etc.) onto the TV screen at the same time.

Parental Control for "Censoring" - this feature can block out channels to keep children from watching undesirable programming. Parental Guideline and Movie Rating settings can also be used as part of the new Content Advisory Data system available with TV programming.

Stereo-TV - with a built-in audio amplifier and a twin speaker system, reception of TV programs in both broadcast stereo sound or (SAP) bilingual broadcast are available.

Twin Antenna (A/B) Inputs - for easy displaying of two separate signal sources on the TV. An A/B button on the remote control switches the TV's Main screen between the two Antenna (A & B) Input options.

Audio/Video Jacks - for direct connections with VCRs (and other accessories) for quality TV picture and sound playback.Component Video Input connectors are also available for high fidelity color and picture resolution when using digital video source material, such as DVD.

Surround Sound - this TV set contains external; audio speaker connections for a more dynamic sound effect capable within the today's Home Cinema environment.

Sleep-Timer - automatically turns the TV OFF at preset time intervals.

Auto Button - for the control of TV Sound and Picture levels. Use the Auto Button on the remote to quickly select various audio modes matched to specific types of TV programming; to select video level adjustments for a variety of program sources; and to make quick one button channel selection of up to 10 of your favorite channels.

High Definition Digital - Projection Television capable of 1500x1080i interlaced imaging for superior resolution and performance. Line doubling circuitry and video processing technology able to output progressive scan material with clean, stable widescreen images. PixelMax optimum triple lens system matched to first surface mirror and fine pitched lenticular screen methods which amounts to an incredible 1,620,000 pixels of display capability. High Definition Component and RGB Inputs are available as well for Y, Pb, Pr; horizontal/vertical sync, and RGB/VGA monitor input operation modes.

Automatic Phosphor Aging Compensation (APAC) - Automatic incremental shifting of TV screen elements to prevent any onscreen image outline retention or "screen burn" problems.

GUIDE Plus+® - Electronic TV Program guide which provides for daily television channel listings, descriptions of program content, sorting of shows by subject themes, and a variety of other VCR programming options. (See your separate GUIDE Plus+® Owner's Manual for further details.)

Because of continuous product improvements, the information mentioned in the documents accompanying your product are subject to change without notice.

As you unpack your TV please note that the following items have been included with your set:

- Owner's Manual
  - Safety Tip Information
  - Factory Service Center Locations
- Warranty Registration Card
- Remote Control Transmitter
- Batteries for Remote Control Use

Refer to the back of this manual for instructions on the cleaning and care of the TV.

End-of-Life disposal

Your new projection television and its packaging contain materials that can be recycled and reused. Specialized companies can recycle your product to increase the amount of reusable materials and minimize the amounts which need to be properly disposed.

Your product also uses batteries which should not be thrown away when depleted, but should be handed in and disposed of as small chemical waste.

Please find out about the local regulations on how to dispose of your old television, batteries, and packaging materials whenever you replace existing equipment.

PICTURE MENU CONTROL ADJUSTMENTS

COLOR, BRIGHTNESS, SHARPNESS, TINT, PICTURE

To adjust your TV color and picture controls, select a TV channel and follow the steps shown below:

BEGIN

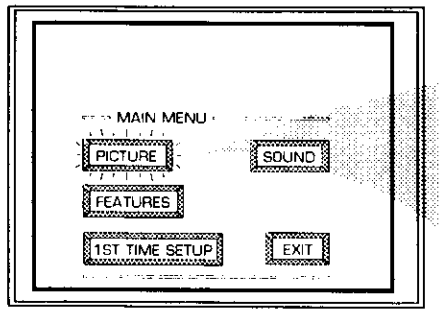
1. **Select BRIGHTNESS, PICTURE, COLOR, TINT, or SHARPNESS** picture control.

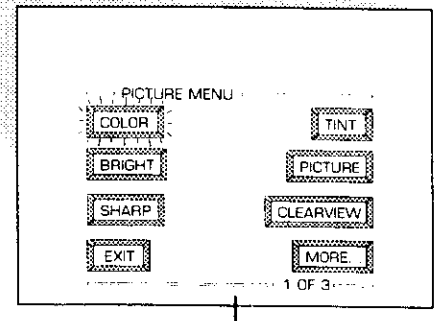
   With the PICTURE MENU on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

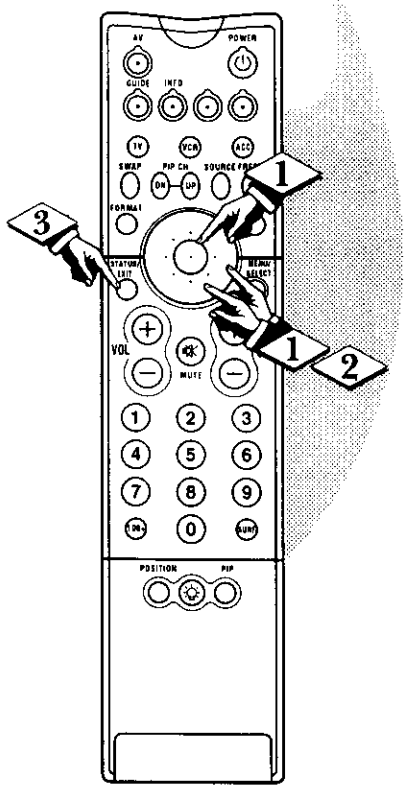
2. **Press the outer MENU ring** buttons to adjust the selected control.

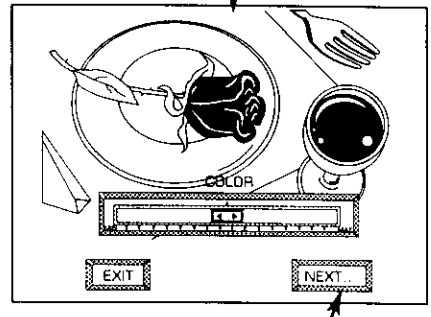
3. **Press the STATUS** button to clear the screen.

STOP









Select and then press MENU (M) button to view additional controls grouped under same feature heading. For Example: Tint, Brightness, Picture, etc.

SMART HELP

Remember. When the bar scale is centered, control settings are at normal mid-range levels.

BRIGHTNESS **Press (-) or (+)** until dark parts of the picture show good detail.

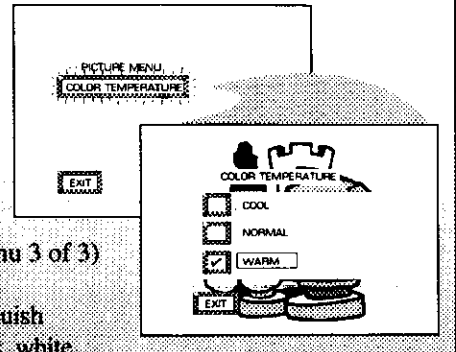
PICTURE **Press (-) or (+)** until whitest parts of the picture are as bright as you prefer.

COLOR **Press (-) or (+)** to add or eliminate color.

TINT **Press (-) or (+)** to obtain natural skin tones. (Also see Flesh Correction on page 9 for more information).

SHARPNESS **Press (-) or (+)** to improve detail in the picture.

Note: A Color Temperature control is also available to set the level or degree of color intensity (especially on white picture screen elements). For example, use the Color Temperature (Picture Menu 3 of 3) for the following settings:
COOL – makes whites, bluish
NORMAL – keeps whites, white.
WARM – makes whites, reddish.



CLEARVIEW

Clearview is a sharpness feature which smoothes out background snow (or picture noise) without losing picture image detail or crispness.

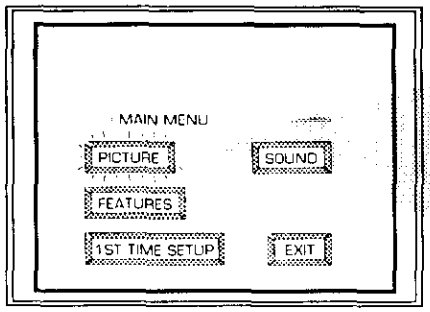
BEGIN

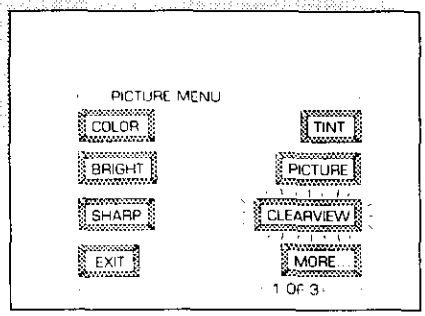
1. **Select CLEARVIEW** control.
With the PICTURE MENU on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

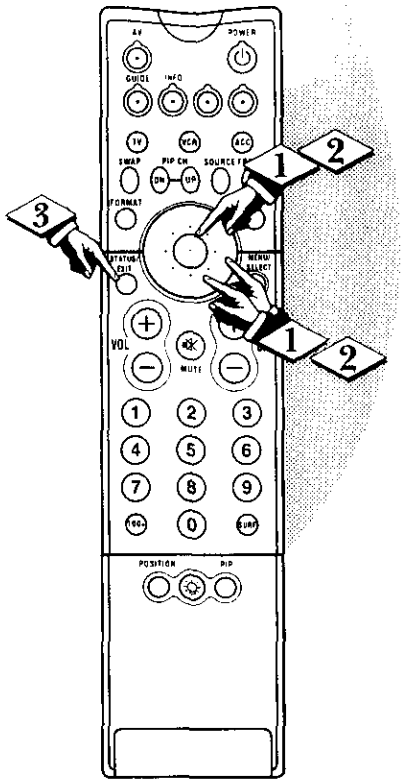
2. **Press the outer MENU ring** buttons to move the RED highlight. Press the center MENU button to select (✓) the ENHANCED mode.

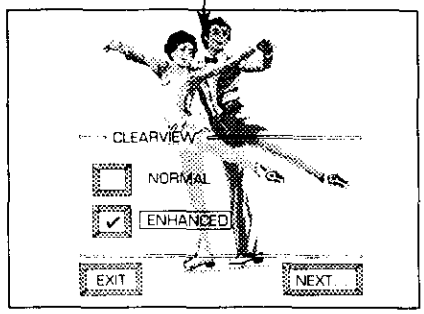
3. **Press the STATUS** button to clear the screen.

STOP

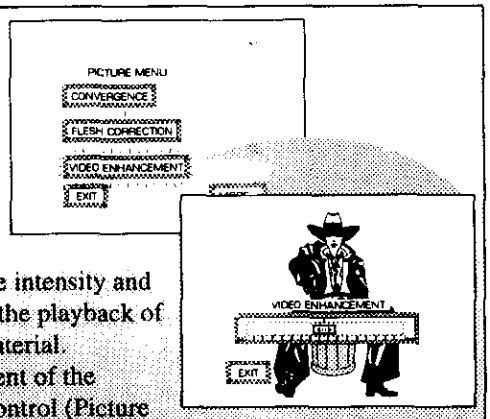








Note: An additional Picture Menu "VIDEO ENHANCEMENT" control (similar in function and use as the Sharpness control) is also available to further improve picture intensity and detail, particularly for the playback of DVD player source material. Selection and adjustment of the Video Enhancement control (Picture Menu 2 of 3) is the same as with other Color and Picture Menu control options.



RED/BLUE CONVERGENCE

Convergence is the correct lining up of the red and blue light paths on the TV screen. NOTE: If no color fringing (see Smart Help) shows, then no Convergence adjustments are necessary for your TV.

BEGIN

1 **Select CONVERGENCE** control.

With PICTURE MENU (2 of 3) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2 **If there is RED or BLUE** color fringing (see note below) on your TV, press the outer MENU ring buttons to move the highlight. Press the center MENU button to select the Align Red or Align Blue Convergence control.

3 **Press the MENU ring buttons** to move the red or blue cross directly over the white cross on the TV screen.

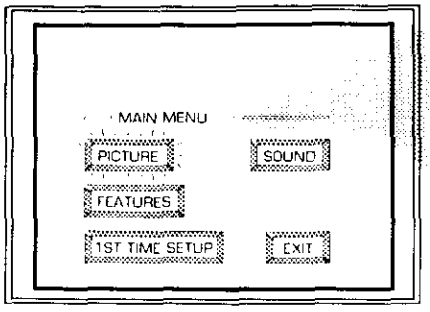
The red or blue cross is properly adjusted when it is completely merged with the white cross. (No color appears around the edge of the white cross).

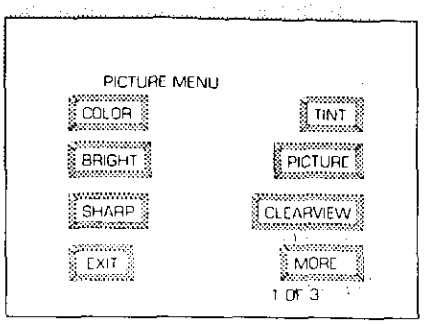
4 **Press the STATUS** button to clear the screen when convergence adjustments are complete.

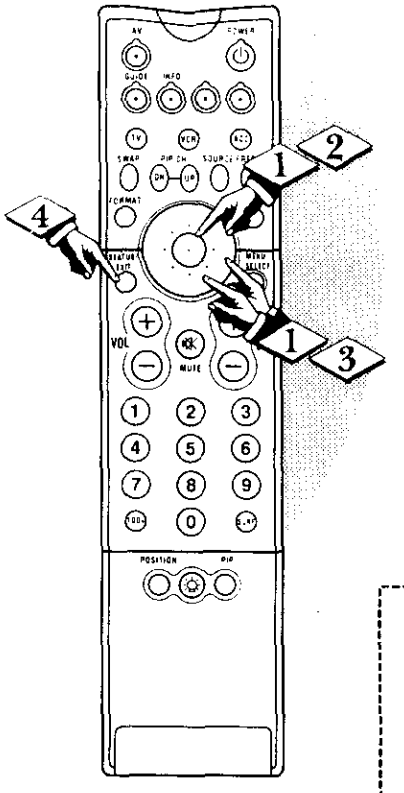
STOP

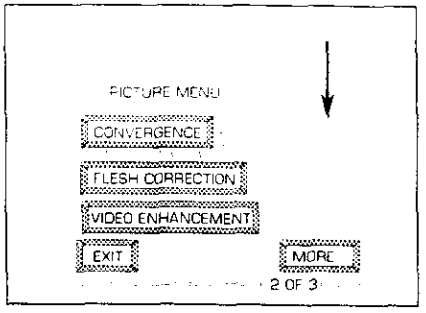
SMART HELP

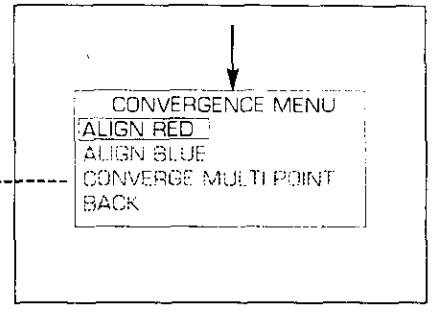
Remember. Convergence has been set at the factory for best viewing, but if one or more of the (red or blue) colors appear around the edges of objects (color fringing) follow the steps given in this section.

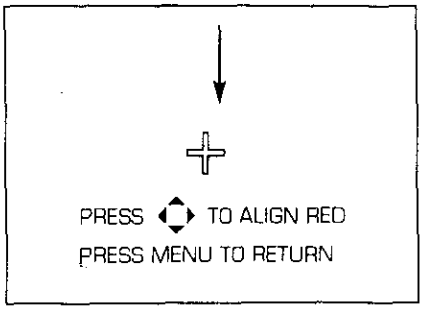




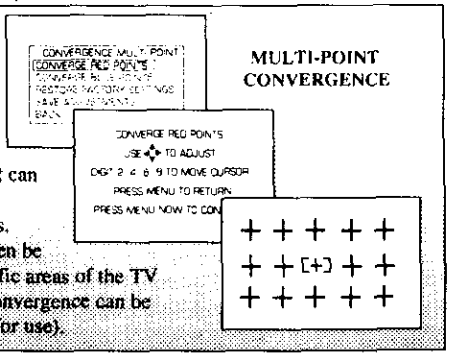








NOTE: Adjustments for "Multi-Point" on-screen color fringing can also be made as part of the TV's Convergence control system. Follow the TV's on-screen menu directions to select individual screen areas that can be readjusted and set for varying red/blue color fringing conditions. These multi-point settings can then be "Saved" to memory for the specific areas of the TV screen (or Factory Settings for convergence can be recalled and put back into place for use).



FLESH CORRECTION

Use the Flesh Correction control to keep skin tone hues (or facial tint) from varying from TV channel to TV channel.

BEGIN

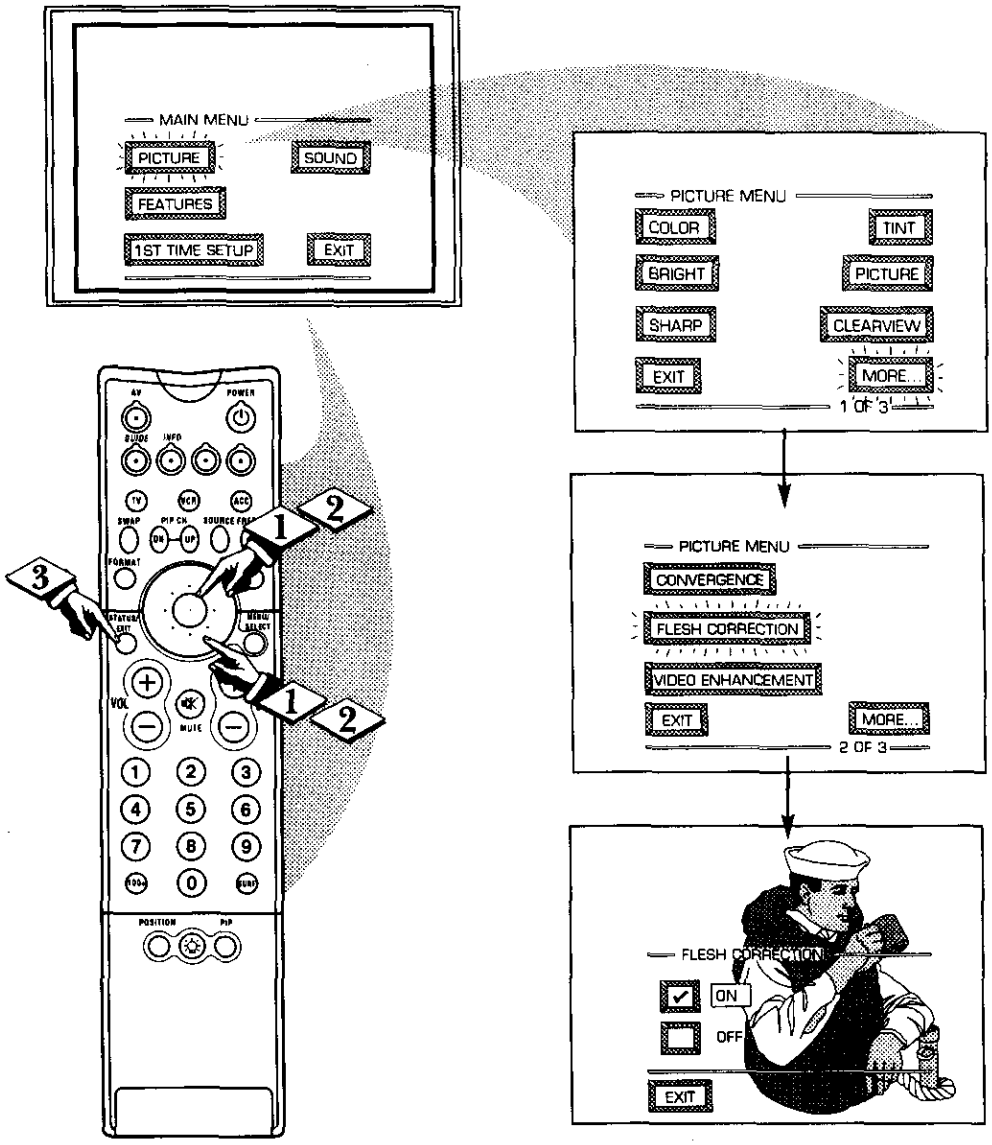
1. **Select FLESH CORRECTION** control.

   With PICTURE MENU (2 of 3) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the MENU ring buttons** to move the RED highlight. Press the center MENU button to turn (✓) the FLESH CORRECTION control ON.

3. **Press the STATUS** button to clear the screen.

STOP



FEATURE MENU CONTROL ADJUSTMENTS

ANALOG FORMAT

Your TV is able to deliver lifelike, widescreen picture (or "home cinema" experience) that is promised with High Definition TV viewing. The Analog Format control can be used to expand conventional 4:3 aspect ratio (width-to-height) broadcasts in order to fit your TV's widescreen format; or to reset the screen to best match the current programming.

BEGIN

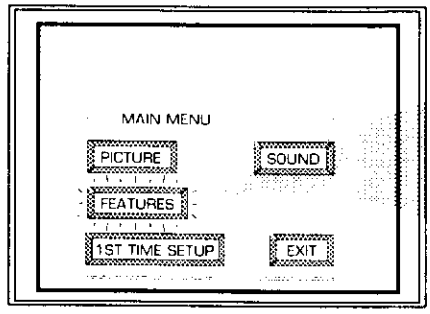
1. **Select ANALOG FORMAT** control.

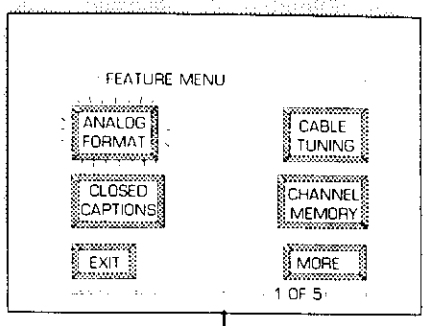
   With the FEATURES MENU on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

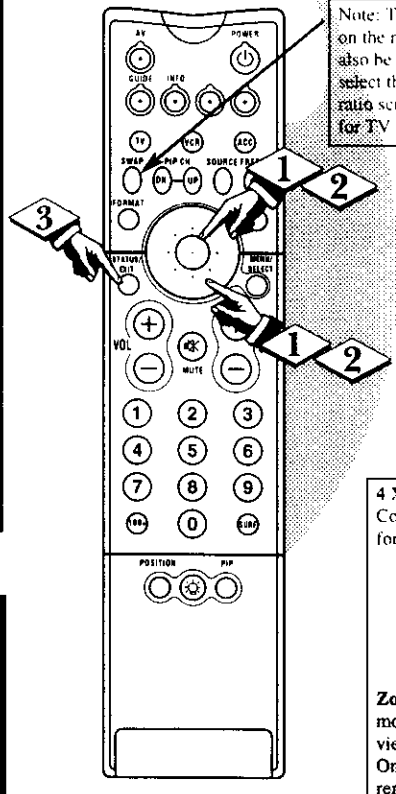
2. **Press the MENU ring buttons** to move the RED highlight. Press the center MENU button to select (✓) the desired screen aspect ratio or screen display control.

3. **Press the STATUS** button to clear the screen.

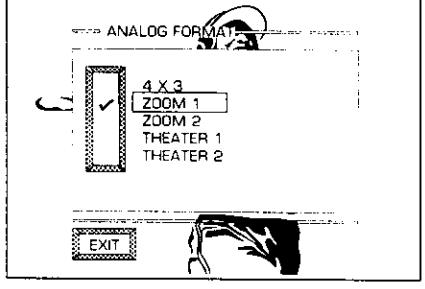
STOP



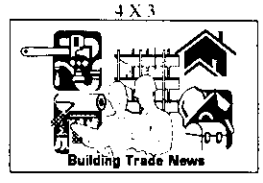




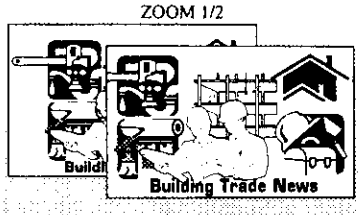
Note: The FORMAT button on the remote control can also be used to quickly select the various aspect ratio screen control settings for TV viewing.



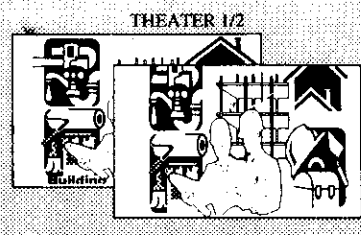
4 X 3 (Standard) - Conventional TV picture format shows onscreen.



Zoom 1/2 - Full widescreen mode with linear expansion to view program broadcasts. Onscreen image material remains horizontally and vertically proportional as the image area is increased in size.



Theater 1/2 - Expanded zoom modes with picture images increased in magnification. Designed for use with "letterbox" or cropped movie images such as found with Cinemascope or Cinerama type program material. Note: With the Theater modes there can be some vertical loss of information as the edges of the picture expands and fills the screen.



SMART HELP

Note: In the past the relationship between a TV screen's width to height, or aspect ratio, has historically been 33% wider than the picture screen height (or a 4:3 aspect ratio). The widescreen format of your TV screen is nearly 80% greater than its measure height (which accounts for a 16:9 aspect ratio). The reason for the 16:9 aspect ratio screen is that it allows for the dramatic and lifelike viewing of original version movies and cinemas (similar to the type found in your local theaters). And the 16:9 aspect ratio widescreen is also a good visual match for how our eyes work in a horizontally oriented field of view and action plane.

CLOSED CAPTION

Closed Captioning (CC) allows you to read the voice content of television programs on the TV screen. Designed to help the hearing impaired this feature uses on-screen "text boxes" to show dialogue and conversations while the TV program is in progress.

BEGIN

1. **Select CLOSED CAPTIONING** control.

With the FEATURES MENU on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the MENU ring buttons** to move the RED highlight. Press the center MENU button to select (✓) the desired Closed Caption mode - For Example: "ALWAYS ON" and "CAPTION 1".

CAPTION 1, 2, 3, 4:
dialogue (and descriptions) for the action on the captioned TV program shows on-screen. (See Important Note on this page.)

TEXT 1, 2, 3, 4:
often used for channel guide, schedules, or bulletin board information for CC programs.

3. After making your Caption mode selection, press the **STATUS** button to clear the TV screen. The selected Closed Caption mode will be active.

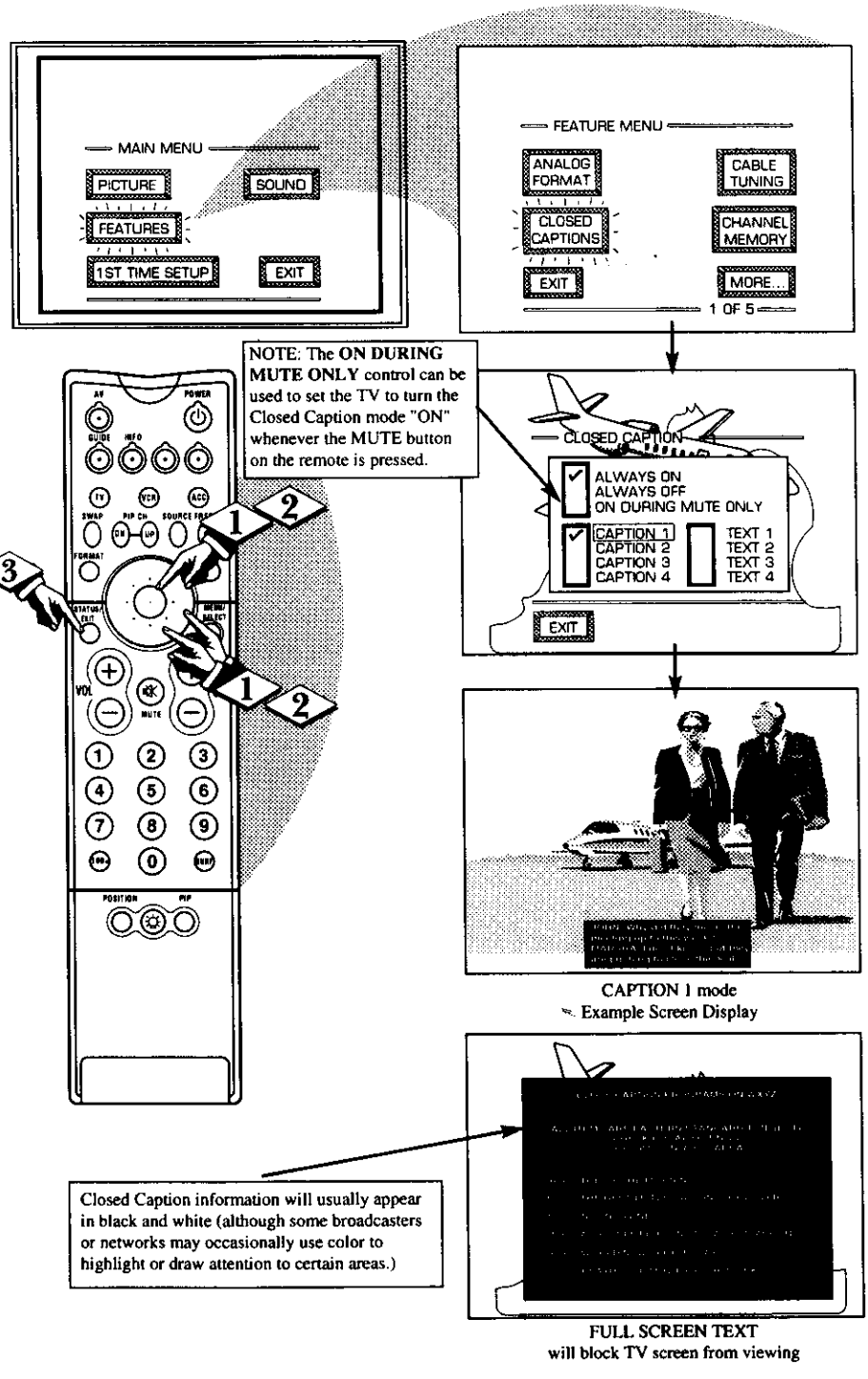
To cancel, set the Closed Captioned feature to OFF when finished.

STOP

SMART HELP

Remember. Broadcast stations will often use spelling abbreviations, symbols, dropouts and other grammatical shortcuts in order to keep pace with the on-screen action. These type factors vary upon the source of the captioned text material and do not indicate a need for service on the part of the TV.

NOTE: Not all TV programs and product commercials are made for broadcast with Closed Caption (CC) information included. Neither are all Closed Caption modes (CAPTION 1-4; or TEXT 1-4) necessarily being used by a broadcast station during the transmission of a closed caption program. Usually "CAPTION 1" is the most used mode to view captioned material. Refer to your area's TV program listings for the stations and times of Closed Caption shows.



CAPTION 1 mode
Example Screen Display

FULL SCREEN TEXT
will block TV screen from viewing

CABLE TUNING

You need to make sure the TV is set to pick up either Cable TV or Antenna signals. In other words, the TV needs to know if you connected a Cable TV signal or a normal antenna to its ANTENNA plug.

NOTE: If you went through First Time Setup (in your Quick Use Guide), this task has already been completed for you.

BEGIN

1 **Select CABLE CHANNEL TUNING** control.

With the FEATURES MENU on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

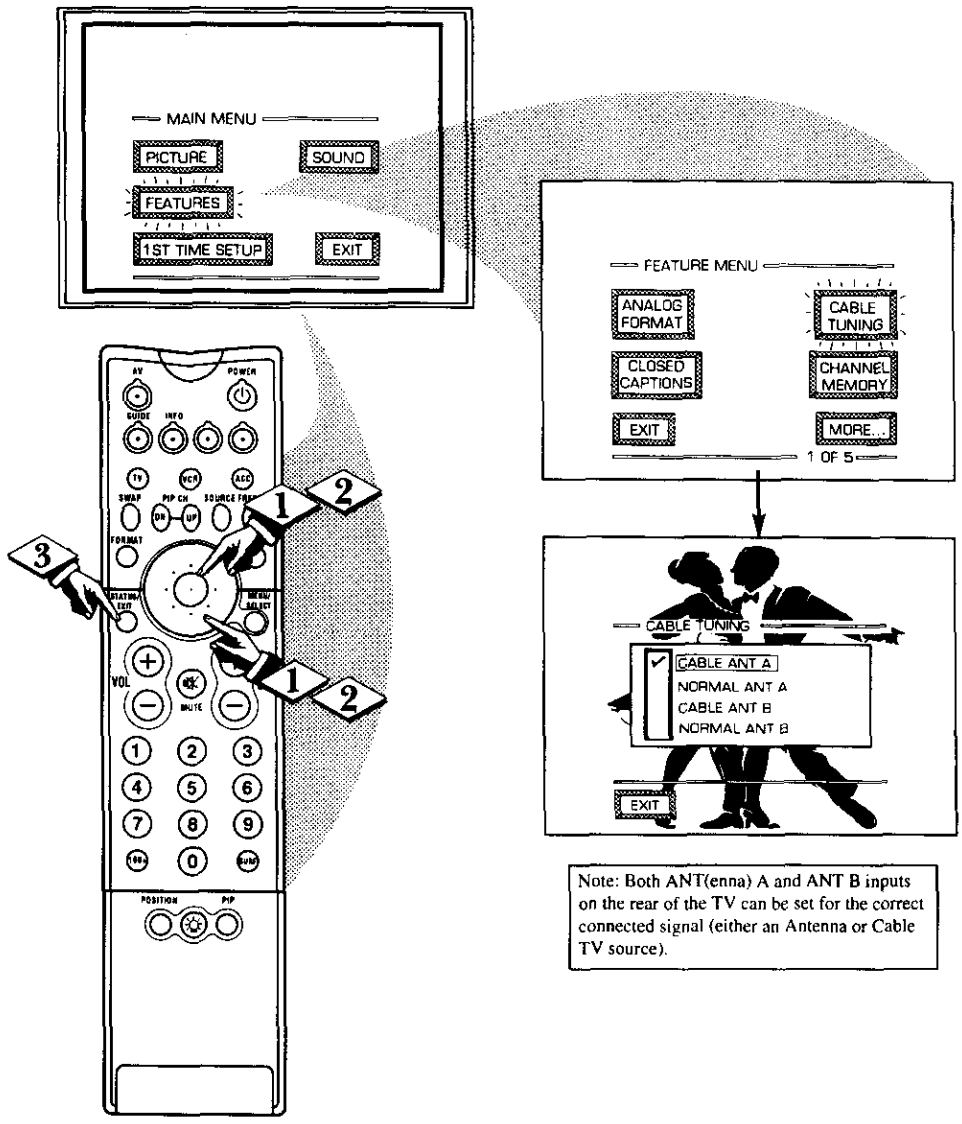
2 **Press the MENU ring buttons** to move the RED highlight. Press the center MENU button to select (✓) the desired mode - For Example: CABLE.

CABLE- **If you DO have Cable TV** connected to the TV. Channels 1-125 available.

NORMAL- **If you have an Antenna** connected to the TV. Channels 2-69 available.

3 **Press the STATUS** button to clear the screen.

STOP



Note: Both ANT(enna) A and ANT B inputs on the rear of the TV can be set for the correct connected signal (either an Antenna or Cable TV source).

CHANNEL MEMORY AUTO-PROGRAMMING

Your TV can automatically set itself for local area (or Cable TV) channels. This makes it easy for you to select only the TV stations in your area when the CHANNEL ▲▼ buttons are pressed.

NOTE: If you went through First Time Setup (in your Quick Use Guide), this task has already been completed for you.

BEGIN

1. **Select CHANNEL MEMORY (START AUTO-PROGRAMMING)** control.

   With the FEATURES MENU on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

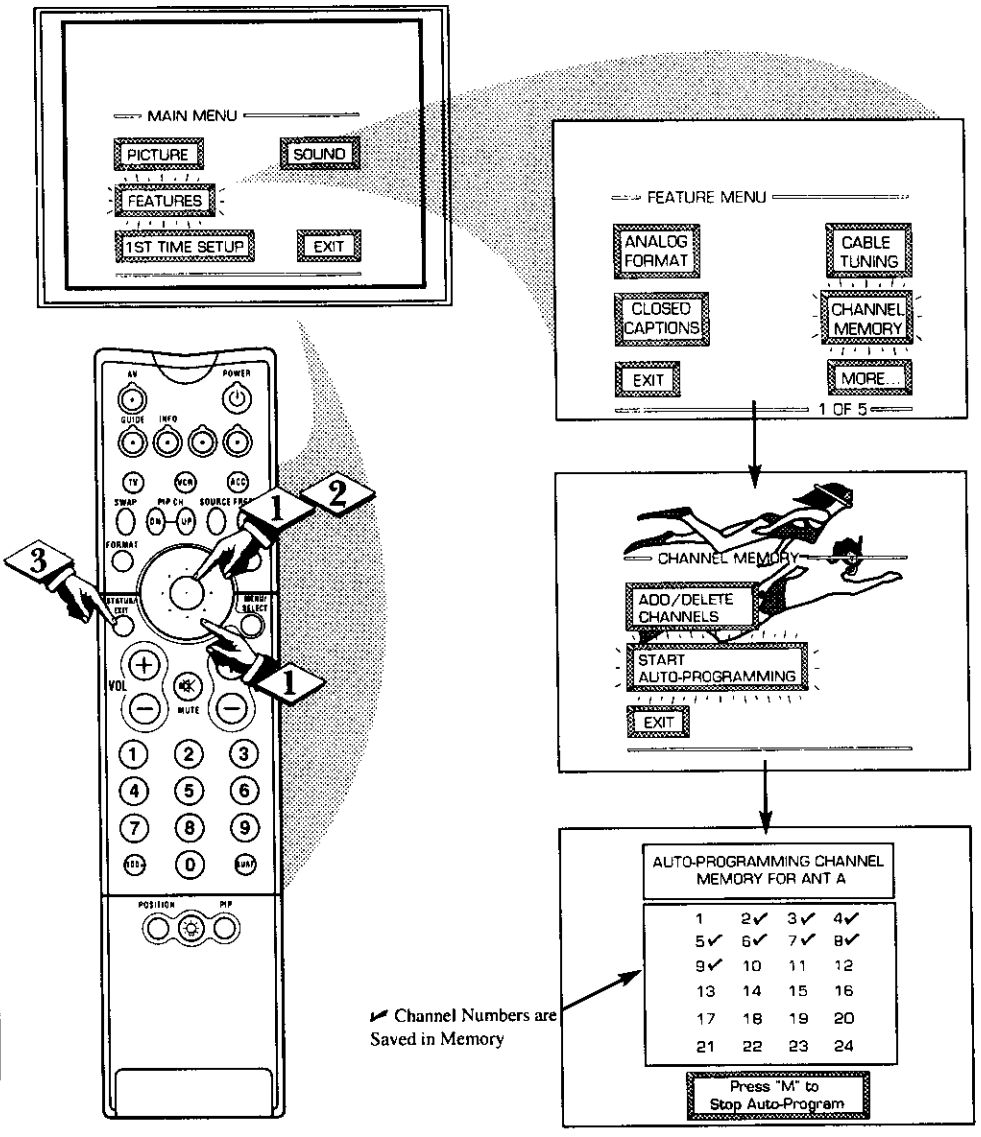
2. **Press the center MENU button** to turn AUTO-PROGRAMMING ON .

   The TV shows which channel numbers are "SAVED" (✔) as they are added into memory.

   "Auto-programming CHANNEL MEMORY is finished" shows when the TV is through adding channels.

3. **Press the STATUS or Menu** button to clear the screen.

STOP



SMART HELP

Try it out. **Press the CHANNEL▲▼ buttons** and see which channels you can select.

Remember, an Antenna or Cable TV signal must first be connected to your TV so that channels can be saved.

If you want to delete any unwanted channels from the TV's memory, see "ADD/DELETE CHANNELS" on the next page.

ADD/DELETE CHANNELS

Auto-Programming (see previous page) adds all the channels it can find (on your Antenna or Cable TV system) into the TV's memory. Add/Delete Channels makes it easy for you to add other channels, or drop unwanted channels, from the list of channels in the TV's memory.

BEGIN

1. **Select CHANNEL MEMORY (ADD/DELETE CHANNELS)** control.

   With the FEATURES MENU on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the CHANNEL ▲▼ or number buttons** to select the channel you want to add or delete.

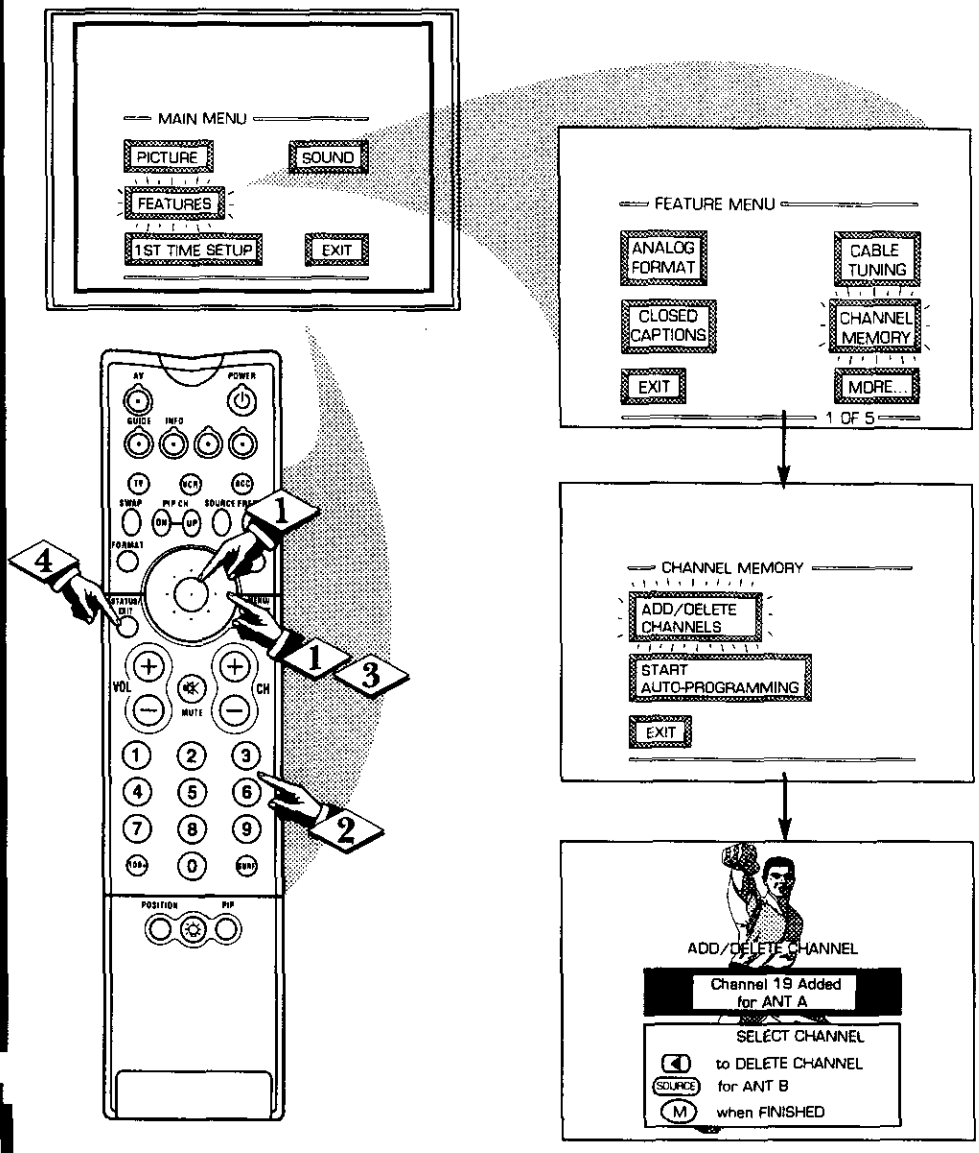
3. **Press the outer MENU ring button** (on the Right) to ADD the channel into the TV's memory.

   Press the outer MENU ring button (on the Left) to DELETE the channel from memory.

   Repeat steps 2 and 3 for each channel you wish to add or delete.

4. **Press the STATUS or MENU** button to clear the screen when through.

STOP



SMART HELP

Remember. A separate ADD/DELETE CHANNEL memory may also be created for the ANT(enna) B Input on the rear of the set (if an Antenna or Cable TV signal has been connected). Press the "SOURCE" button on the remote, while in the ADD/DELETE CHANNEL mode, to switch between the ANT A and ANT B channel memory lists. Then follow steps 2 and 3 as shown to the left to add or delete the desired channels.

SET CLOCK

Your TV comes with an on-screen clock. During normal operation the clock appears on the screen with every channel change (and when the STATUS button is pressed).

BEGIN

1. **Select SET CLOCK** control.

With the FEATURES MENU (2 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the remote's number buttons** to set the time clock.

3. **Press the STATUS** button to set the clock in operation and clear the screen.

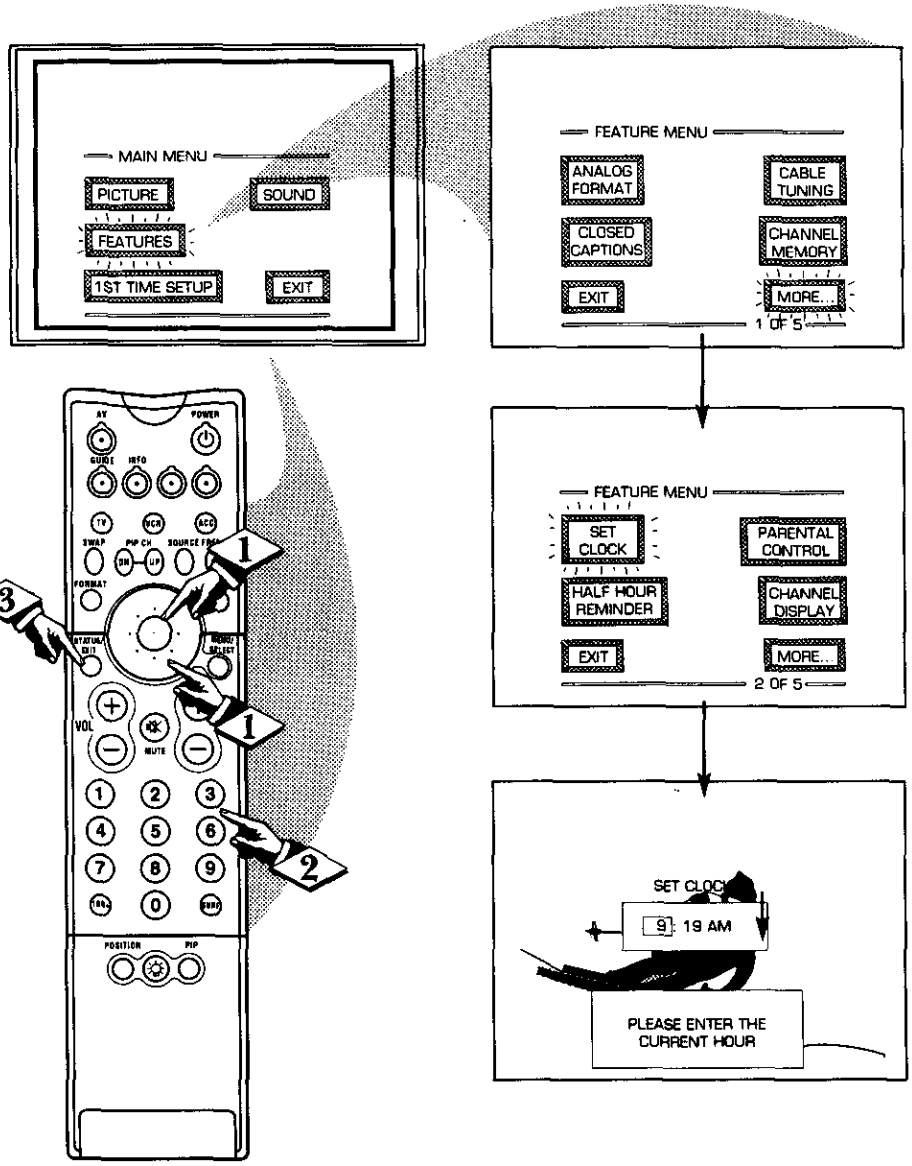
STOP

SMART HELP

Remember, be sure to press "0" first and then the hour number for single digit entries.

The remote's MENU ring buttons can also be used to set the hours, minutes and AM/PM portions of the clock.

TV Clock settings may be lost when the TV is unplugged (or AC power to the set is interrupted).



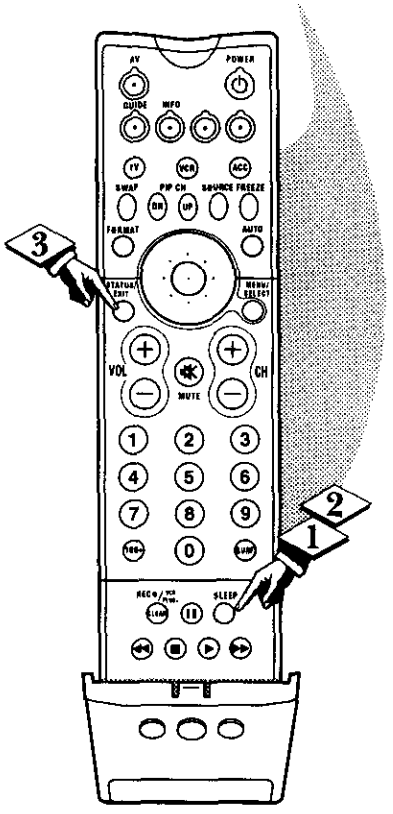
SLEEP TIMER

Have you ever fallen asleep in front of the TV only to have it wake you up at two in the morning with a test pattern screeching in your ears? Well, your TV can save you all that trouble by automatically turning itself off.

BEGIN

1. **Press the SLEEP** button on the remote control.
2. **Press the SLEEP button** repeatedly to pick the amount of time (15 minutes to 2 hours ahead) before the TV will turn itself off.
3. **Press the STATUS** button to clear the screen after you have set the time for the TV to turn off.

STOP



SMART HELP

Remember, to see how many minutes are left before the TV shuts itself off, reselect the SLEEP TIMER control screen.

To stop a SLEEP TIMER setting, reset the timer back to OFF. (Turning the TV off and on, or pressing a button during the last minute of a timer setting, will also cancel a setting.)

A few seconds before the TV is to shut off a message will come on the screen telling you *GOOD NIGHT.*

CHANNEL DISPLAY

With the Channel Display control you can change the size and location of the on screen channel and clock information.

BEGIN

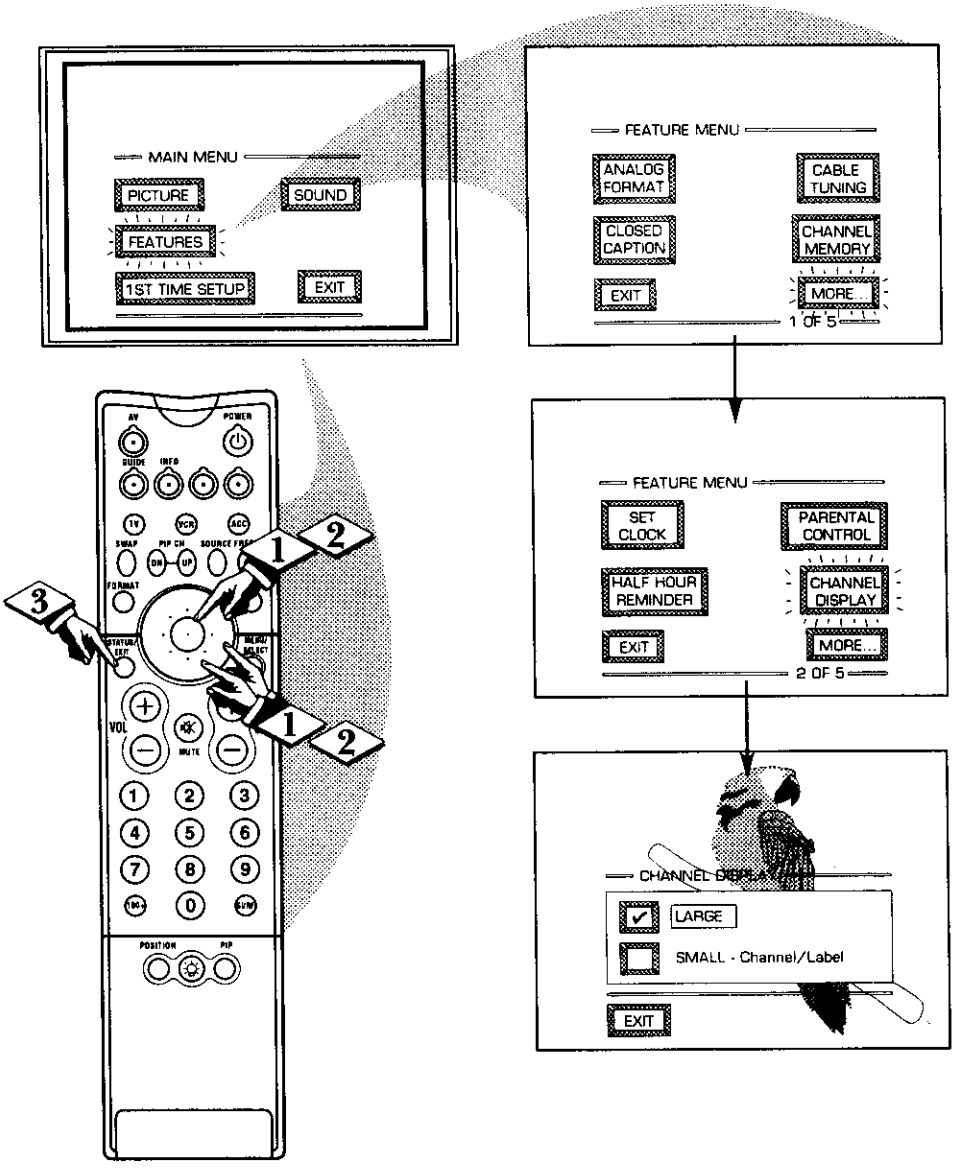
1. **Select CHANNEL DISPLAY** control.

   With the FEATURES MENU (2 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the MENU ring and center MENU** buttons to highlight and select (✔) the LARGE or SMALL display control.

3. **Press the STATUS** button to clear the screen.

STOP



SMART HELP

Try it out. Press the CHANNEL ▲▼ buttons and you should see the Display Size you selected.

Remember. The SMALL SIZE display shows only the channel number, not the time (or clock).

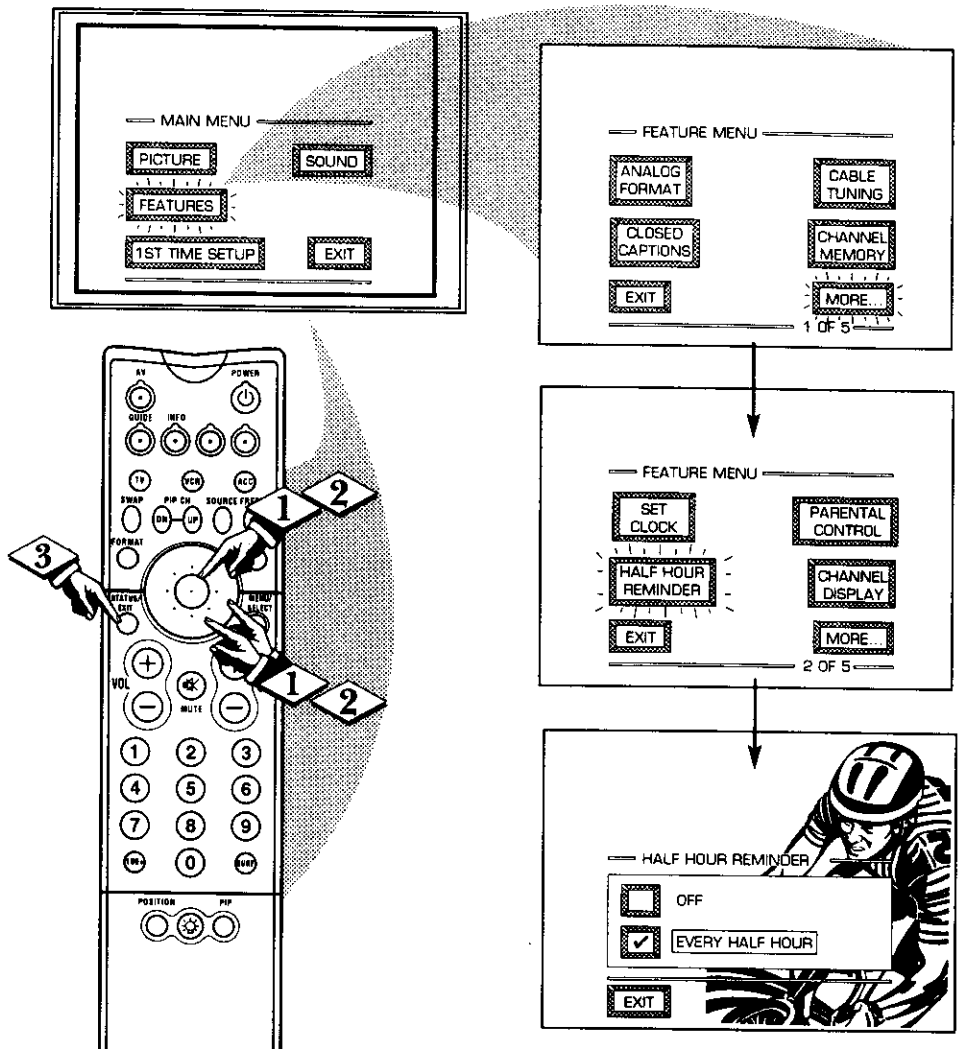
HALF HOUR REMINDER

With the Half Hour Reminder control the TV automatically shows you the current time and channel every thirty minutes.

BEGIN

1. **Select HALF HOUR REMINDER** control.
   With the FEATURES MENU (2 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.
2. **Press the MENU ring and center MENU** buttons to highlight and select (✔) the EVERY HALF HOUR item.
3. **Press the STATUS** button to clear the screen.

STOP



SMART HELP

Remember. The Time and Channel Reminders will show on the hour and the half-hour for about five seconds.

PARENTAL CONTROL SETUP CODE NUMBER

Parental Control allows parents to block out, or "censor", any channels they think children should not watch. A channel placed under Parental Control cannot be viewed until a correct access code is used to unlock the channel for viewing.

First let's set your Parental Code:

BEGIN

1 Select the PARENTAL CONTROL.

With the FEATURES MENU (3 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

"CHANNEL BLOCKING" and "SETUP CODE" show on screen.

2 Press the MENU ring and center MENU buttons to highlight and select the SETUP CODE item.

3 Press 0, 7, 1, 1 on the remote.

"XXXX" shows on the ACCESS CODE SETUP screen as you press the number buttons.

"INCORRECT ACCESS CODE - TRY AGAIN" will also show on the screen.

4 Press 0, 7, 1, 1 on the remote again.

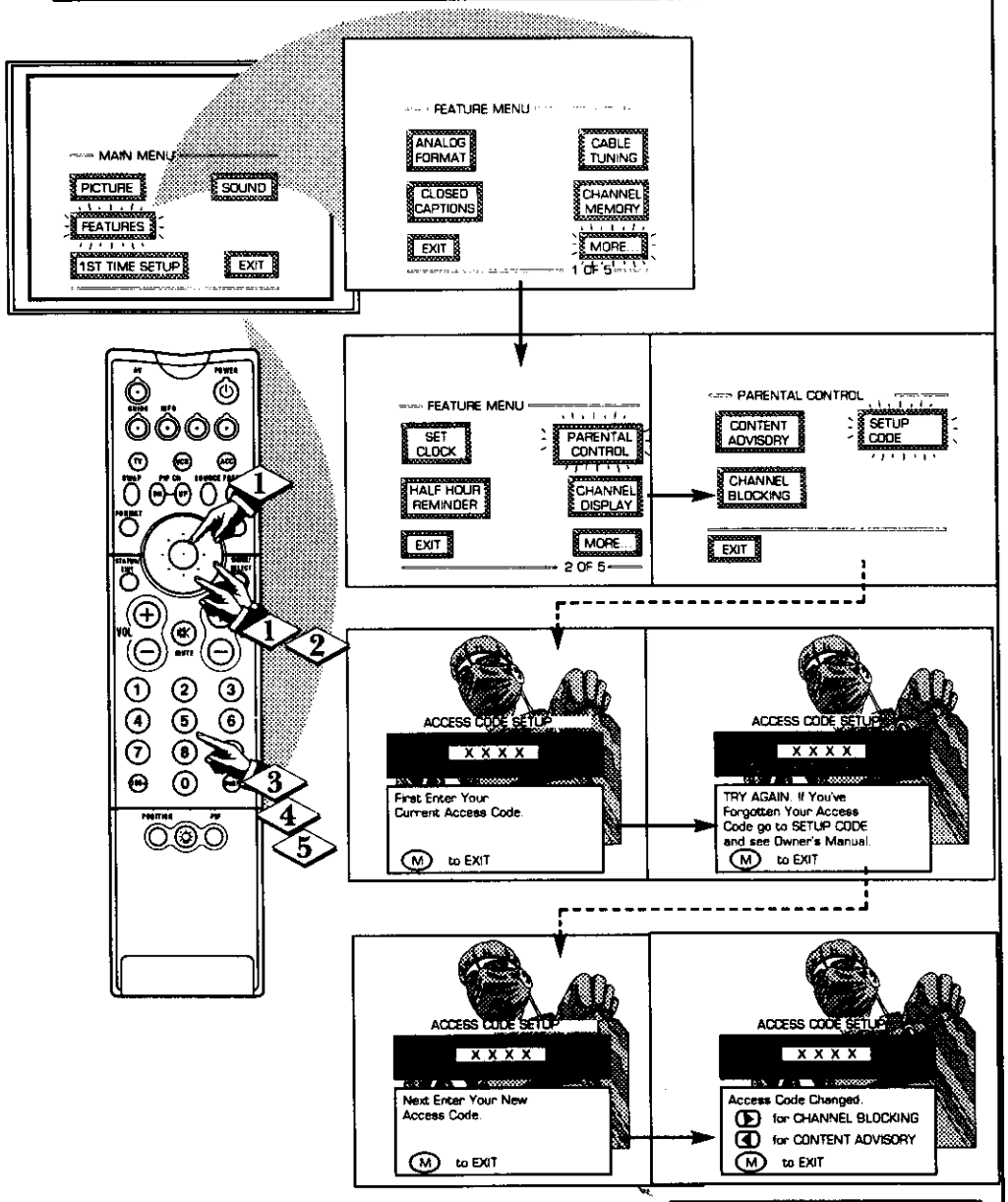
"Next Enter Your New Access Code" shows on the screen.

5 Enter a new four digit number code using the remote.

"Access Code Changed" shows on the screen to let you know the new code has been set.

***Continue to the next page** to find out how to "BLOCK" channels from viewing.*

NOTE: Your TV left the factory with the Parental Code set to "0000". If you are using your TV and the Parental Control for the first time, and don't want to SETUP a new Access code number, you can use the "0000" number to block channels - see next page. The "0711" Parental Code (shown on this page) is given as a default or way to reset the Code when the current Access number is not known.



- **Press outer MENU ring button (on the Right)** to go on and start to "block" channels.
- **Press outer MENU ring button (on the Left)** to go to "Content Advisory" (or TV and Movie Ratings system of channel blocking).
- **Press the center MENU** button to return to the Parental Control Menu screen.
- **Press STATUS** to clear the screen.

SMART HELP

Parents - it isn't possible to unlock or defeat your Censor Code without changing to a new code number. So if your Code number changes, and you didn't change it yourself, then you will know that someone has altered the code and the blanked out channel has been viewed.

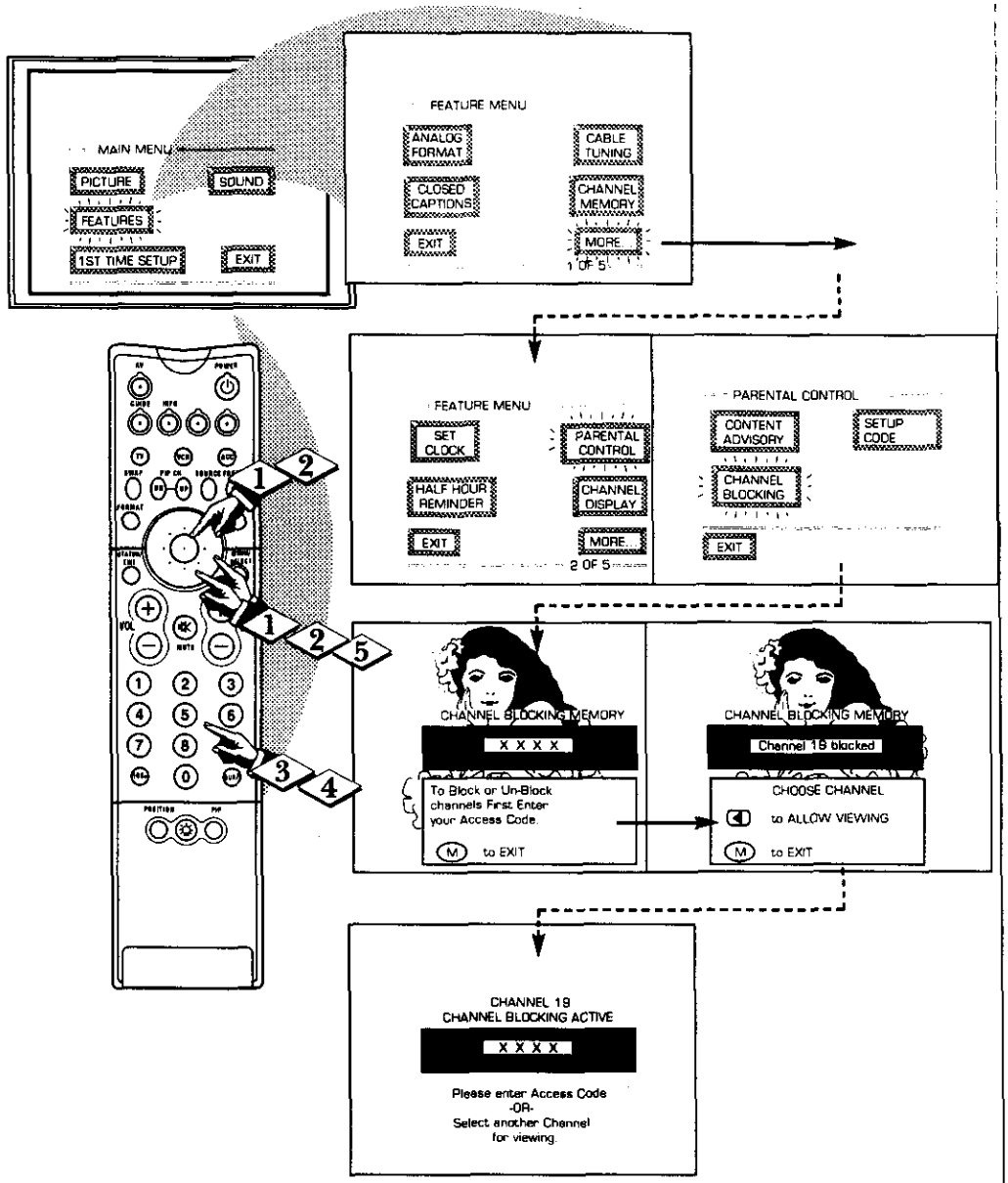
PARENTAL CONTROL CHANNEL BLOCKING

After your personal Parental Code number has been set (see previous page), you are now ready to select the channels you want to block out or censor.

BEGIN

1. **Select the BLOCK CHANNELS** control.
   With the FEATURES MENU (3 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.
2. **Press the MENU ring and center MENU** buttons to highlight and select the CHANNEL BLOCKING item.
3. **Enter the correct Parental Code** number.
4. **Press Channel ▲▼** or Channel Number buttons to select the channel you want to block.
5. **Press the outer MENU ring button** (on the right) to "BLOCK VIEWING" on the selected channel.
   Press the **outer MENU ring button** (on the left) to "ALLOW VIEWING" on a blocked channel.
   Repeat steps 3 and 4 for any other channels you wish to block out.

STOP



BLOCKED CHANNEL SCREEN MESSAGE
(Appears when an attempt to select a blocked channel is made and Parental Control is ON.)

SMART HELP

Remember, once set Parental Control blocks out the selected channel number on both the ANT A and ANT B channel rings. Also, to make TV viewing easier all channels (for both ANT A/B) will be unblocked, once the correct Parental Code number has been entered.
When the TV is turned OFF and then back ON again, is when Parental Control is back in place for all blocked out channels.

PARENTAL CONTROL CONTENT ADVISORY

Another new area available to parents for the censoring of program material is through the TV Guidelines and Movie Ratings system. Program Content Advisory data will soon be contained within the broadcast signals of received TV programs. When setup by the parent or viewer, the TV can respond to transmitted advisory data by blocking out or denying access to TV shows (based on whether the program meets or exceeds the limitations you select as viewable). The TV program can then only be viewed by entering the correct and current Parental Code Access number.

The Content Advisory system uses both "Movie Ratings" and a "Parental Guidelines" form of censoring. Refer to the following page sections for explanations on the different Rating system levels and their uses.

BEGIN

1. **Select the CONTENT ADVISORY** Menu option

With PARENTAL CONTROL Menu on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

A Parental Guideline/Movie Rating status screen will appear with a review of currently BLOCKED Content Advisory categories.

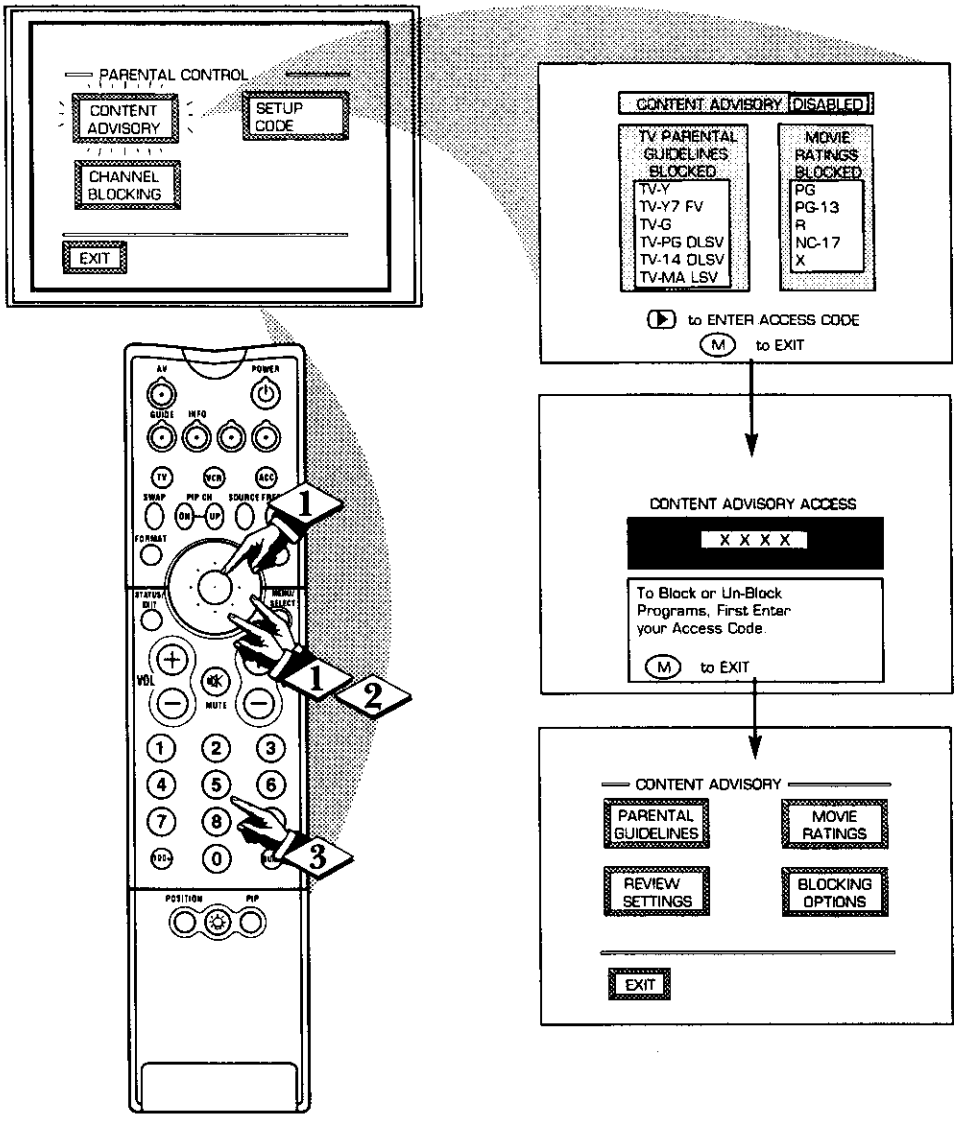
2. **Press the outer MENU ring button** (on the right) to select the ENTER ACCESS CODE Menu item.

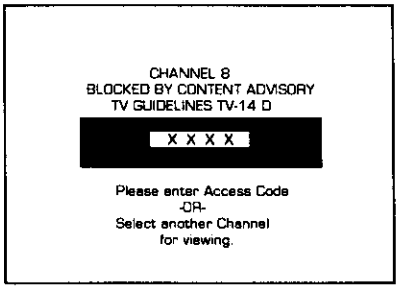
3. **Enter the correct Parental Code** number (see note at the top of this page).

"CONTENT ADVISORY" Menu screen appears. Parental Guidelines, Movie Ratings and other blocking control items are ready for selection and use.

STOP

Note: Please remember that a valid and current Access Code number will be required in the setup and use of the TV's "Content Advisory" system. Review the previous **SETUP CODE** section on how to obtain a valid Parental Access Code number before attempting to make adjustments within the Movie Ratings and Parental Guidelines system.





NOTE: In normal Content Advisory system operation the TV screen will display a message when programming is blocked by a Movie Rating, Parental Guideline, or Blocking Option control feature. Entering the correct ACCESS CODE number will unblock all the blocked Content Advisory Rated channels until the TV is turned Off. The blocked Advisory Ratings will be back in place when the TV is turned back On again.

CONTENT ADVISORY
MOVIE RATINGS

Movie Ratings set viewing access levels for TV programming according to current Motion Picture Association of America (MPAA) ratings. These ratings are similar to the categories used with the rated movies appearing in cinema theaters and with video rental material.

BEGIN

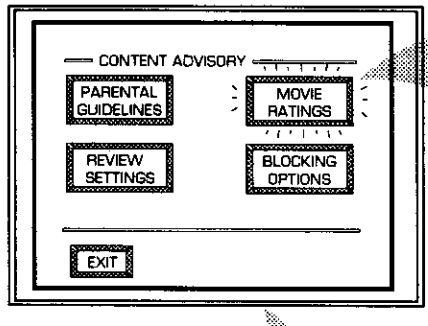
1 Select the MOVIE RATINGS Menu option.

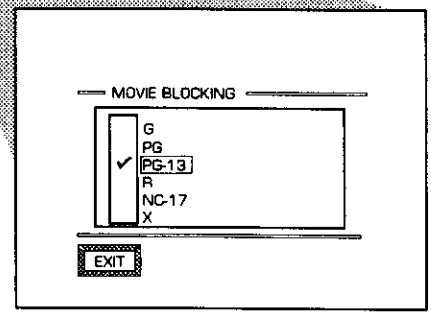
With CONTENT ADVISORY Menu on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

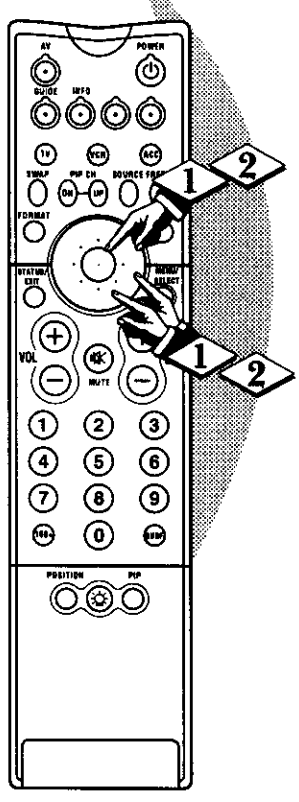
2 Press the MENU ring and center MENU buttons to highlight and select (✓) the desired MOVIE BLOCKING level.

When in operation a "Blocked - Movie Rating" TV screen appears when movies are received which include the same selected rating as the Movie Blocking setting(s). Only the correct Access Code number, entered by the viewer, will unblock or allow the viewing of a block rated program.

STOP







- **G - General Audience:** Most parents would find this program suitable for all ages. This type of programming contains little or no violence, no strong language, and little or no sexual dialogue or situations.
- **PG - Parental Guidance:** This programming contains material that parents may find unsuitable for younger children. It may contain one or more of the following: Moderate violence, some sexual situations, infrequent coarse language, or some suggestive dialogue.
- **PG-13**: This programming contains material that parents may find unsuitable for children under the age of 13. It contains one or more of the following: violence, sexual situations, coarse language, or suggestive dialogue.
- **R - Restricted:** This programming is specifically designed for adults. Anyone under the age of 17 should only view this programming with an accompanying parent or adult guardian. It contains one or more of the following: intense violence, intense sexual situations, strong coarse language, or intensely suggestive dialogue.
- **NC-17 - No one under 17 admitted**: This type of programming should be viewed by adults only. It contains graphic violence, explicit sex, or crude indecent language.
- **X - Mature audience only**: This type of programming contains one or more of the following: very graphic violence, very graphic and explicit or indecent sexual acts, very coarse and intensely suggestive language.

SMART HELP

Note: When a Movie Rating is selected (✓) all higher level ratings are automatically blocked (although each individual Movie Rating can be manually selected and turned On or Off as desired). Programs with lower than the selected rating level are allowed for viewing or unblocked.

CONTENT ADVISORY PARENTAL GUIDELINES

Parental Guidelines can be even more defined and specific in the degree and extent of material parents may allow for TV program viewing. Sub-settings for Language, Violence, and other blocking factors can be manually switched On or Off for use within the major Parental Guideline categories (TV-Y7, TV-PG, etc.).

BEGIN

1. **Select the PARENTAL GUIDELINES** Menu option.

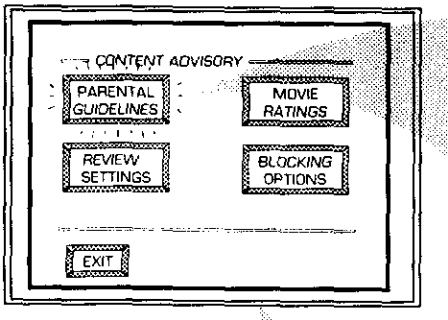
With CONTENT ADVISORY Menu on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

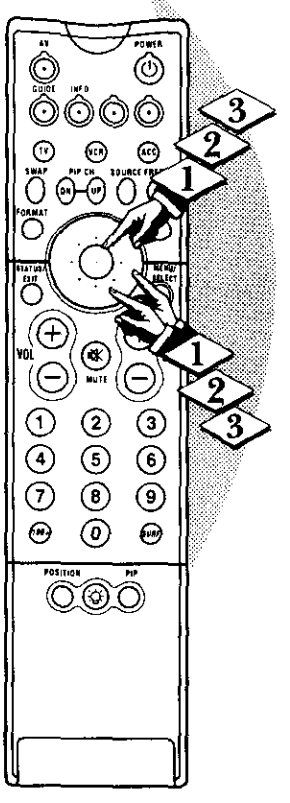
2. **Press the MENU ring (Left and Right side) buttons** to highlight and select the desired PARENTAL GUIDELINE rating level (TV-Y, TV-Y7, etc.).

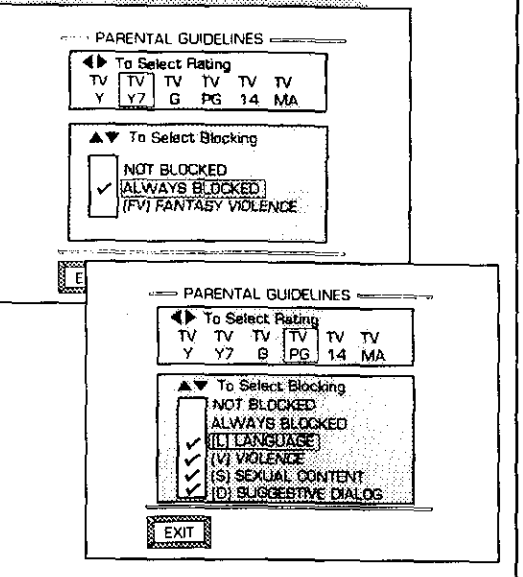
3. **Press the MENU ring and center MENU buttons** to Block (✓) the selected Parental Guideline category (or to set other individual blocking feature items available within that Guideline category (L, V. S, D, etc.) as desired).

Note: Selecting "ALWAYS BLOCKED" (or individually adjusting the L, V, S, D settings) for any one rating will set all other higher level ratings to be automatically blocked as well.

STOP







- **TV-Y - *Appropriate for all children:*** Designed for a very young audience, including children ages 2-6. This type of programming is not expected to frighten younger children.
- **TV-Y7 -Appropriate for children seven and older:** It may be more appropriate for children who have acquired the development skills needed to distinguish between make-believe and reality. This programming may include mild fantasy and comic violence (FV).
- **TV-G - General Audience:** This type of programming contains little or no violence, no strong language, and little or no sexual dialogue or situations.
- **TV-PG - Parental Guidance suggested:** This type of programming contains one or more of the following: Moderate violence (V), some sexual situations (S), infrequent coarse language (L), or some suggestive dialogue (D).
- **TV-14 - Unsuitable for children under 14:** This type of programming contains one or more of the following: intense violence (V), intense sexual situations (S), strong coarse language (L), or intensely suggestive dialogue (D).
- **TV-MA - Mature audience only:** This type of programming contains one or more of the following: graphic violence (V), explicit sexual situations (S), or crude indecent language (L).

- **(V) - Violence**
- **(S) - Sexual *situations***
- **(L) - Language**
- **(D) - Inappropriate dialogue**
- **(FV) - Fantasy Violence** may frighten children under seven. Some cartoons may have this rating. Available in the TV-Y7 category only.

SMART HELP

The TV-Y7; TV-PG; TV-14; and TV-MA guidelines also include customized settings for various additional items such as V (violence), S (sexual situations), L (coarse language), D (suggestive dialogue), and FV (fantasy violence). These additional settings are category specific and can be individually selected for use as desired.

CONTENT ADVISORY BLOCKING OPTIONS

The Content Advisory system also has "Blocking Option" controls which can be used to deny viewing access for channel programs and movies even when they are "unrated", or contain "no rating" information as broadcasted.

BEGIN

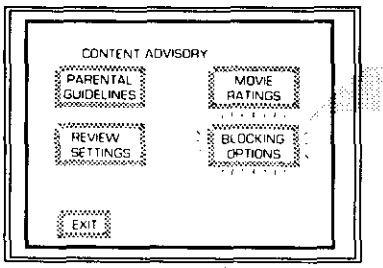
1. **Select the BLOCKING OPTIONS** Menu control.

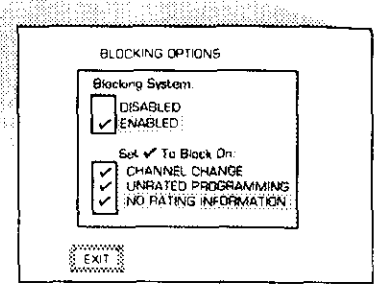
   With CONTENT ADVISORY Menu on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

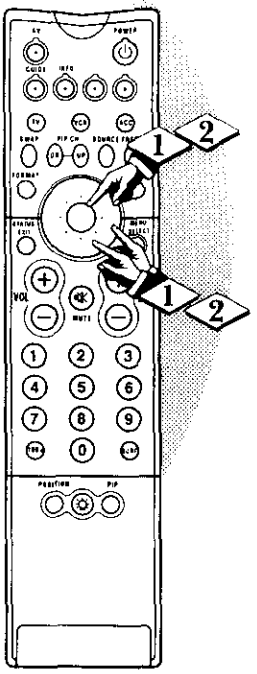
2. **Press the MENU ring and center MENU buttons** to turn the Blocking System On (highlight and select ✔ ENABLED). Then use the remote Menu buttons to select the desired programming and information blocking options.

   Please refer to Note shown with this page section for details on "unrated" and "no rating" program control options.

STOP







Note: Remember that Content Advisory data or encoded information is not available with all received TV programming (this also includes commercials, and other program spot announcements). Broadcaster's can decide **not to encode** any kind of content advisory ratings with their programming, or they can actually choose to **encode programs to be "unrated."**

The TV Blocking Options allow the viewer to block any program without content advisory data with the use of its "NO RATING INFORMATION" control. And to block programs that are encoded as "unrated" with its "UNRATED PROGRAMMING" control option.

Since the reception of Content Advisory data can take a few seconds, you may want to use the "CHANNEL CHANGE" option to be sure no viewing is allowed during blocked program channel changes. This can eliminate the display of a few seconds of undesirable video on the TV, or receiving scenes from a Ratings blocked channel source.

CONTENT ADVISORY REVIEW SETTINGS

Use the Review Settings control to quickly check the status for Content Advisory system Parental Guidelines and Movie Rating "Blocked" program levels.

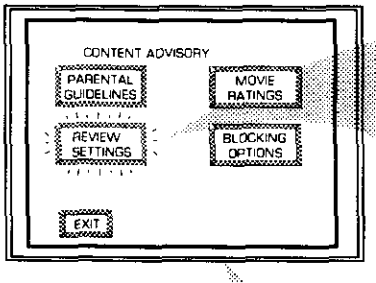
BEGIN

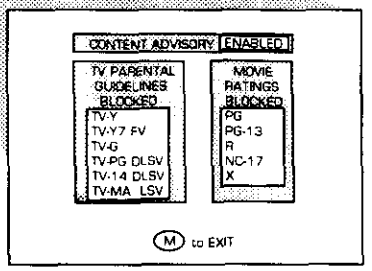
1. **Select the REVIEW SETTINGS** Menu option.

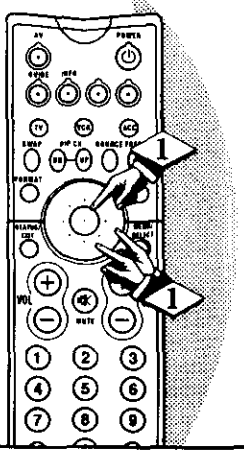
   With CONTENT ADVISORY Menu on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

   The TV screen will display the current Parental Guideline and Movie Ratings Blocked program settings. Content Advisory system status will also be shown (Enabled -On, or Disabled - Off).

STOP







CHANNEL LABELS

Do you ever have trouble remembering on which channel a particular station or network is located? The Channel Labels Control is a quick way to view and select channels from a list of Labeled channels.

A Label is a four letter callout you can set to appear with the on screen channel number. Example Label: WXYZ - for a TV station's call letters.

To select channels from the Channel Labels Control:

BEGIN

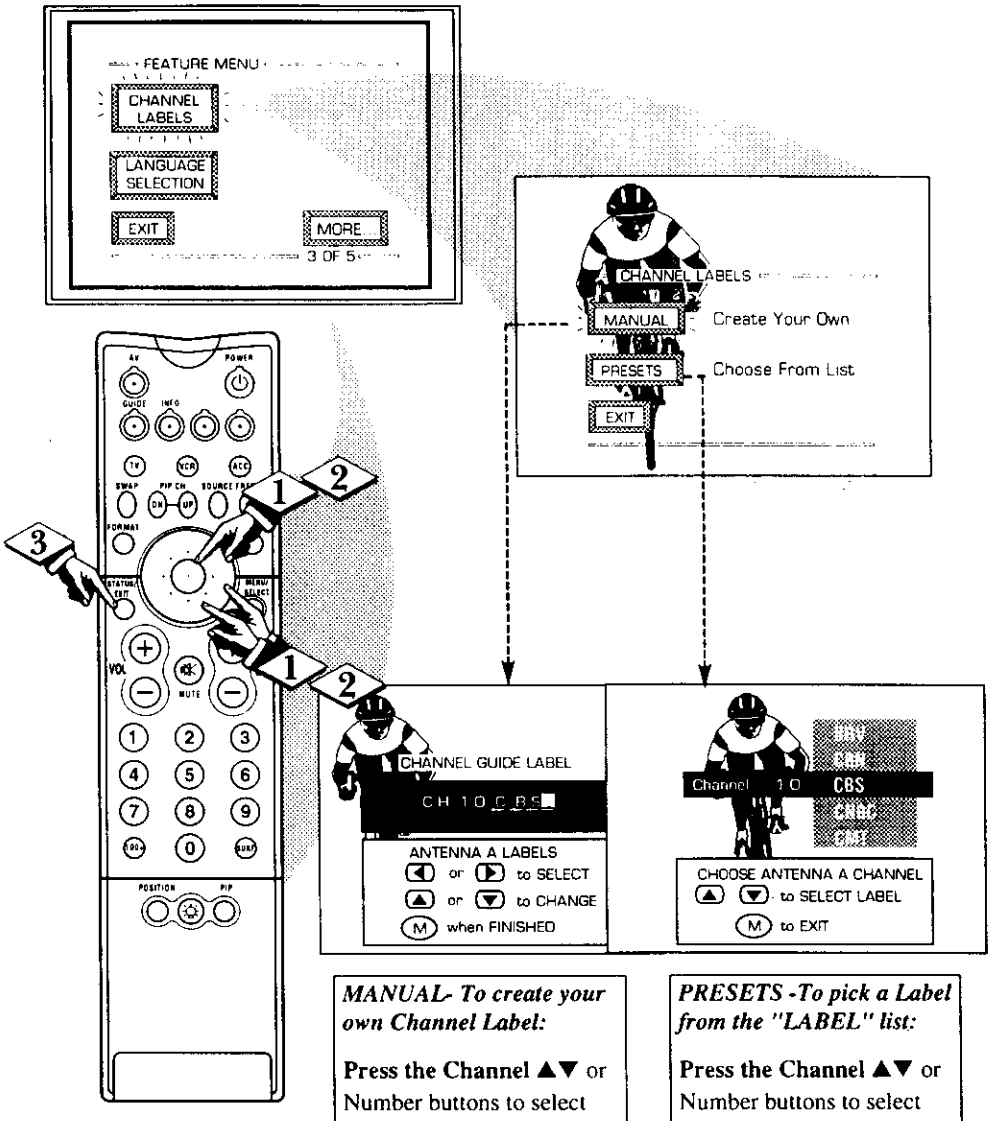
1. **With the FEATURE MENU** (3 of 5) on the TV screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select CHANNEL LABELS.
2. **Press the MENU ring and center MENU buttons** to highlight and select either:

   "MANUAL" to create your own label for a channel.

   "PRESETS" to choose from a list of prewritten channel labels.

   (See instruction details on this page.)
3. **Press the STATUS** button to clear the screen.

STOP



MANUAL- To create your own Channel Label:

Press the Channel ▲▼ or Number buttons to select desired station.

A red highlight shows the active letter space for the channel label.

Press the outer MENU ring (top or bottom) buttons on the remote to pick any of the letters or symbols that are given for your use.

Press the outer MENU ring (Left and Right) buttons on the remote to move the red highlight to the other letter spaces and repeat.

Press the STATUS button to clear the screen when finished.

PRESETS -To pick a Label from the "LABEL" list:

Press the Channel ▲▼ or Number buttons to select desired station.

Press the outer MENU ring (top or bottom) buttons to move up and down the Channel Label list.

Just stop on any label you might want to use.

The selected label automatically appears with channel changes and when the STATUS button is pressed.

Press the STATUS button to clear the screen when finished.

LANGUAGE

Note: If you went through First Time Setup, This task has already been completed for you.

For our Spanish and French speaking TV owners an on-screen LANGUAGE option is present. With the LANGUAGE control you can set the TV's on-screen features to be shown in either English, Spanish or French.

BEGIN

1. **Select the LANGUAGE DISPLAY** control.

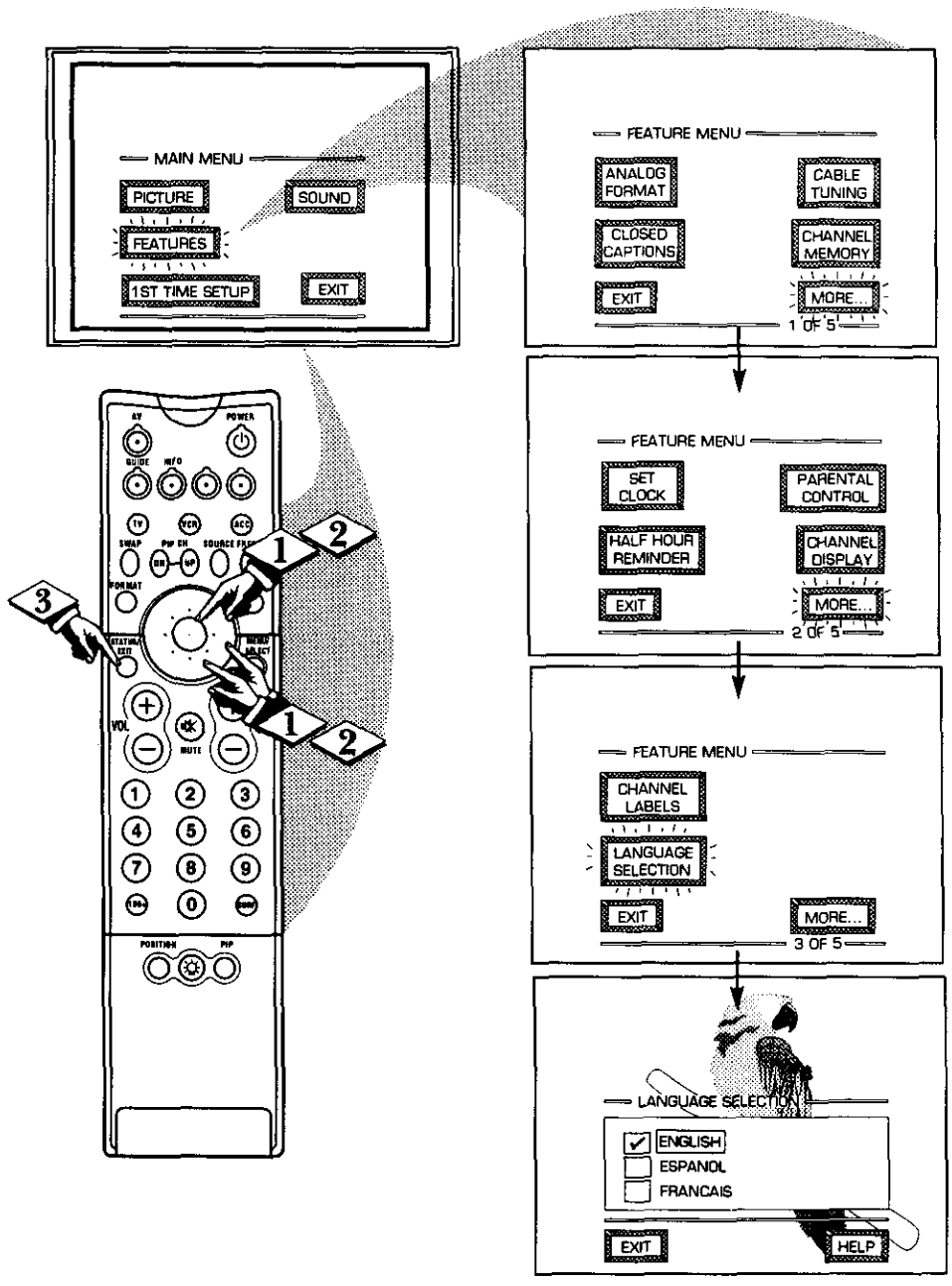
   With FEATURES MENU (3 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the MENU ring and center MENU buttons** to highlight and select (✓) English, Español, or Francais on the display control.

   Text for the on-screen Menu will change to the selected language.

3. **Press the STATUS** button to clear the screen.

STOP



SMART HELP

Remember, the Language control only makes the TV's on-screen (MENU) items appear in English, Spanish, or French text. It does not change the other on-screen text features such as Closed Captioned (CC) TV shows.

SOUND MENU CONTROL ADJUSTMENTS

BASS, TREBLE, BALANCE

Your TV also has individual sound adjustment controls. The BASS (low frequency), TREBLE (high frequency), and Speaker BALANCE may all be used to adjust the sound playback of TV programs.

BEGIN

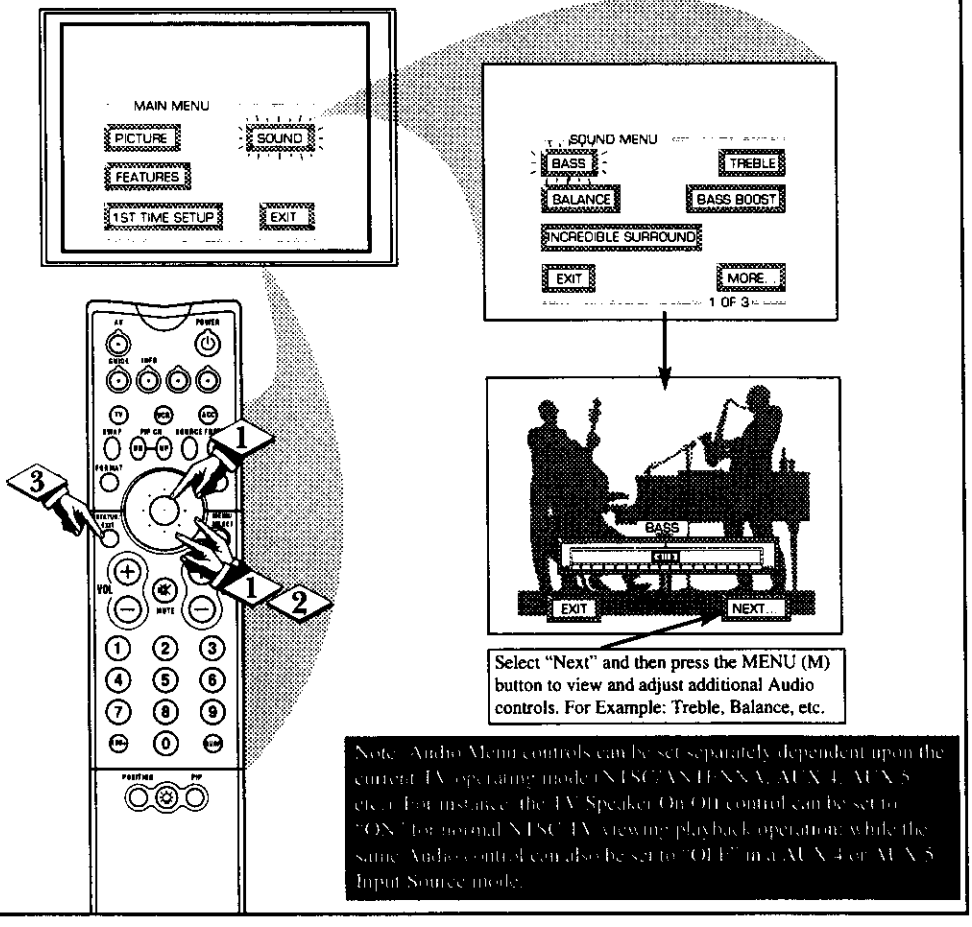
1. **Select BASS, or TREBLE, or BALANCE** sound control.

   With the SOUND MENU on the screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the outer MENU ring (Left and Right)** buttons to adjust the sound control to levels you prefer.

3. **Press the STATUS** button to clear the screen.

STOP



Note: Audio Menu controls can be set separately dependent upon the current TV operating mode (NTSC/ANTENNA, AUX 4, AUX 5 etc.). For instance, the TV Speaker On/Off control can be set to "ON" for normal NTSC TV viewing playback operation, while the same Audio control can also be set to "OFF" in a AUX 4 or AUX 5 Input Source mode.

BASS BOOST

The BASS BOOST control increases the low frequency audio range of the TV. This creates a deeper, fuller playback sound which can be heard through the TV's speakers.

BEGIN

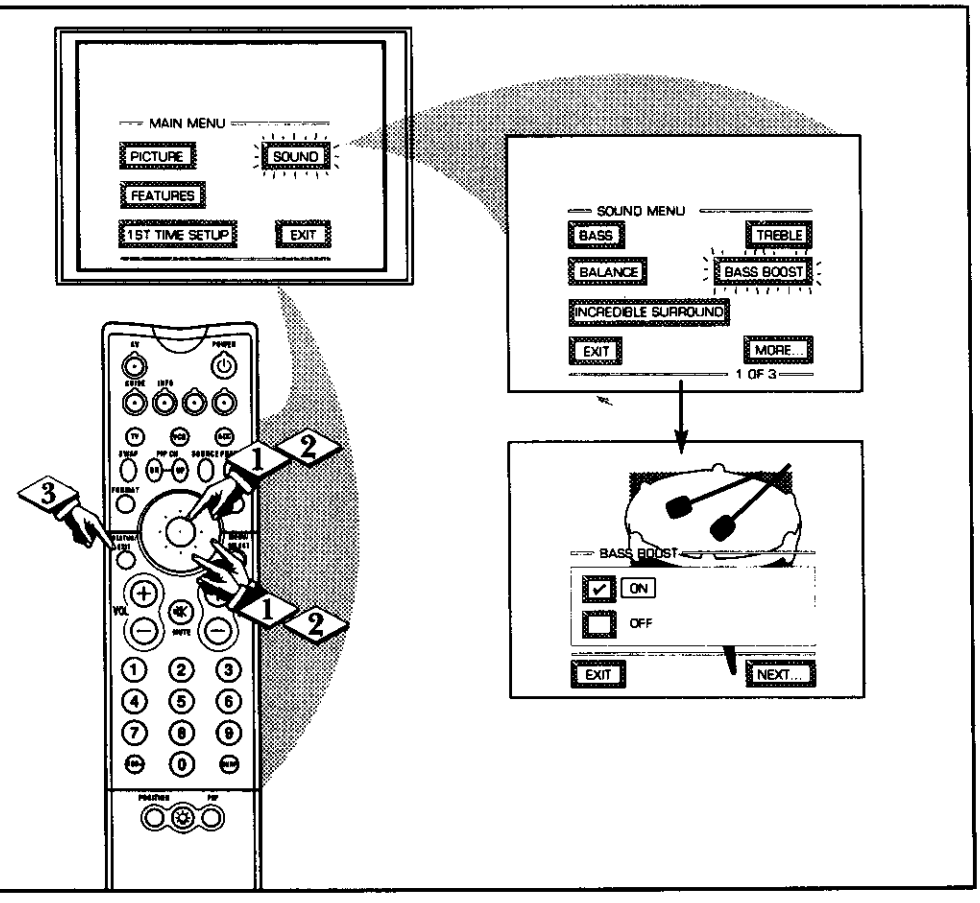
1. **Select BASS BOOST** sound control.

   With the SOUND MENU on the screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the MENU ring and center MENU buttons** to highlight and turn ON (✔) the BASS BOOST control.

3. **Press the STATUS** button to clear the screen.

STOP



SOUND MENU CONTROLS (CONTINUED)

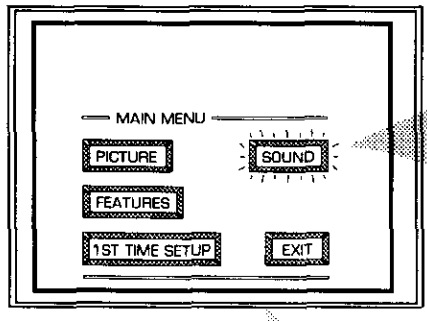
STEREO

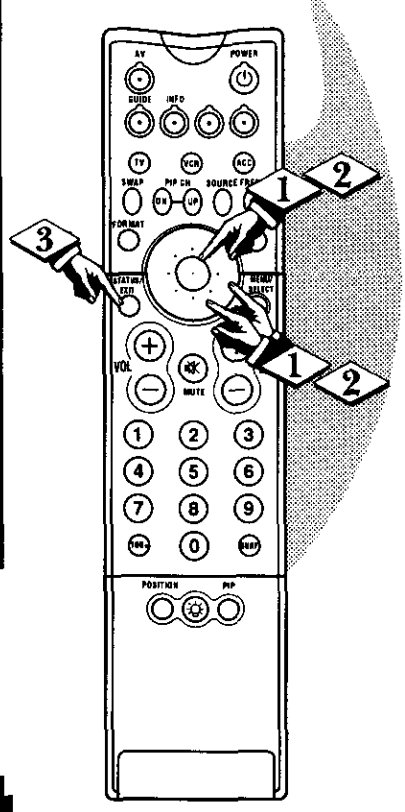
Your TV is able to receive broadcast stereo TV programs. The TV is equipped with an amplifier and twin speaker system through which the stereo sound can be heard.
Note: STEREO will appear on the TV's channel status screen to indicate when a stereo broadcast signal is available and received.

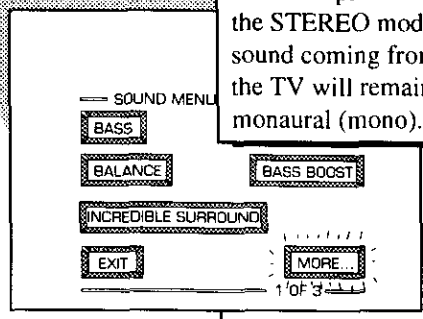
BEGIN

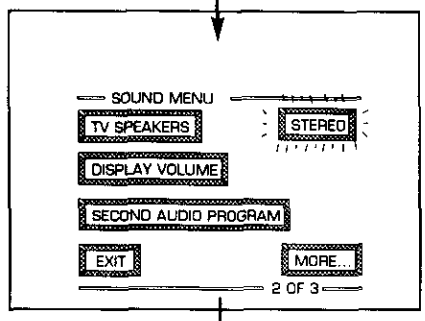
1. **Select STEREO** sound control.
With the SOUND MENU on the screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.
2. **Press the MENU ring and center MENU buttons** to highlight and turn ON (✓) the STEREO mode.
3. **Press the STATUS** button to clear the screen.

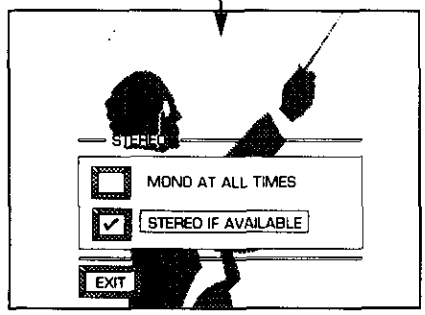
STOP











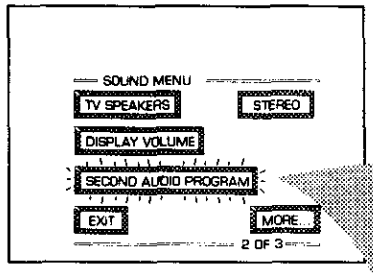
SMART HELP

Remember.
If a stereo signal is not available and the TV is placed in the STEREO mode, sound coming from the TV will remain monaural (mono).

SECOND AUDIO PROGRAM

Second Audio Program (SAP) is part of the stereo broadcast system. Sent as a additional audio channel SAP can be heard apart from the current TV program sound. TV stations are free to use SAP for any number of purposes, but many experts believe it will be used for foreign language translations of TV shows (or for weather and news bulletins.)

NOTE: If a SAP signal is not present with a selected program, the SAP option can not be selected. "This program does not contain SAP information" will show on the TV screen.



SECOND PROGRAM SOUND CAN ONLY BE SELECTED (✓) WHEN SAP INFORMATION IS PRESENT ON CURRENT CHANNEL.

SOUND MENU CONTROLS (CONTINUED)

INCREDIBLE SURROUND

The Incredible Surround control can be used to add greater depth and dimension to both monaural (MONO) and STEREO TV sound.

BEGIN

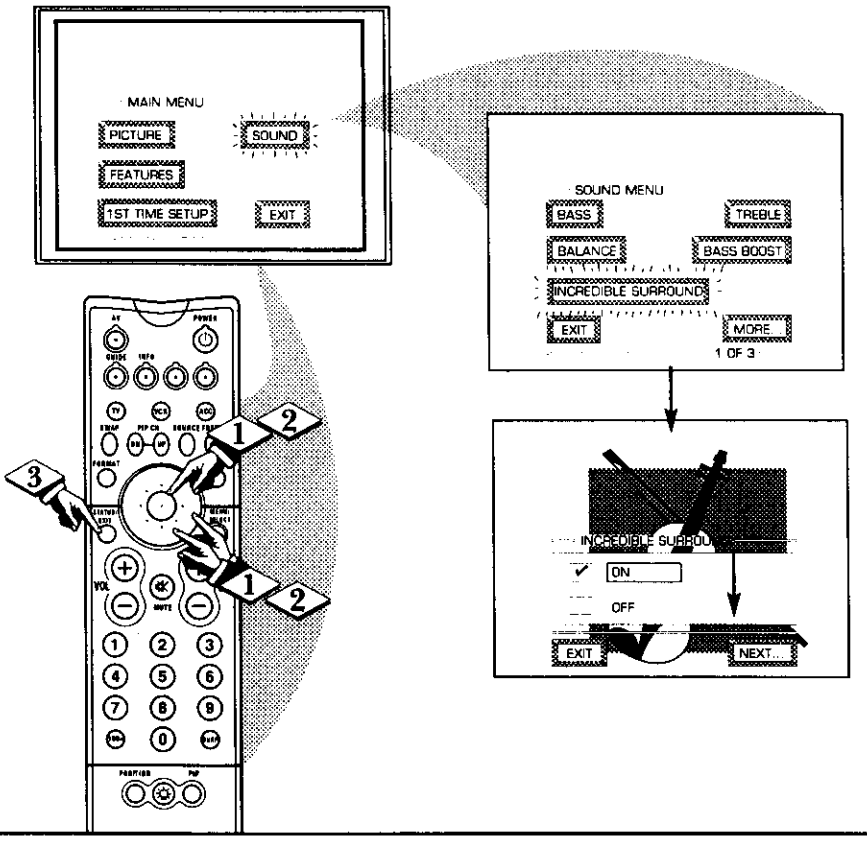
1. **Select the INCREDIBLE SURROUND** control.

With the SOUND MENU on the screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the MENU ring and center MENU** buttons to highlight and turn ON (✓) the INCREDIBLE SURROUND mode.

3. **Press the STATUS** button to clear the screen.

STOP



DISPLAY VOLUME

Use the DISPLAY VOLUME control to see the TV's volume level settings on the TV screen. Once set the Volume Display will be seen each time the VOLUME buttons (on the TV or remote) are pressed.

BEGIN

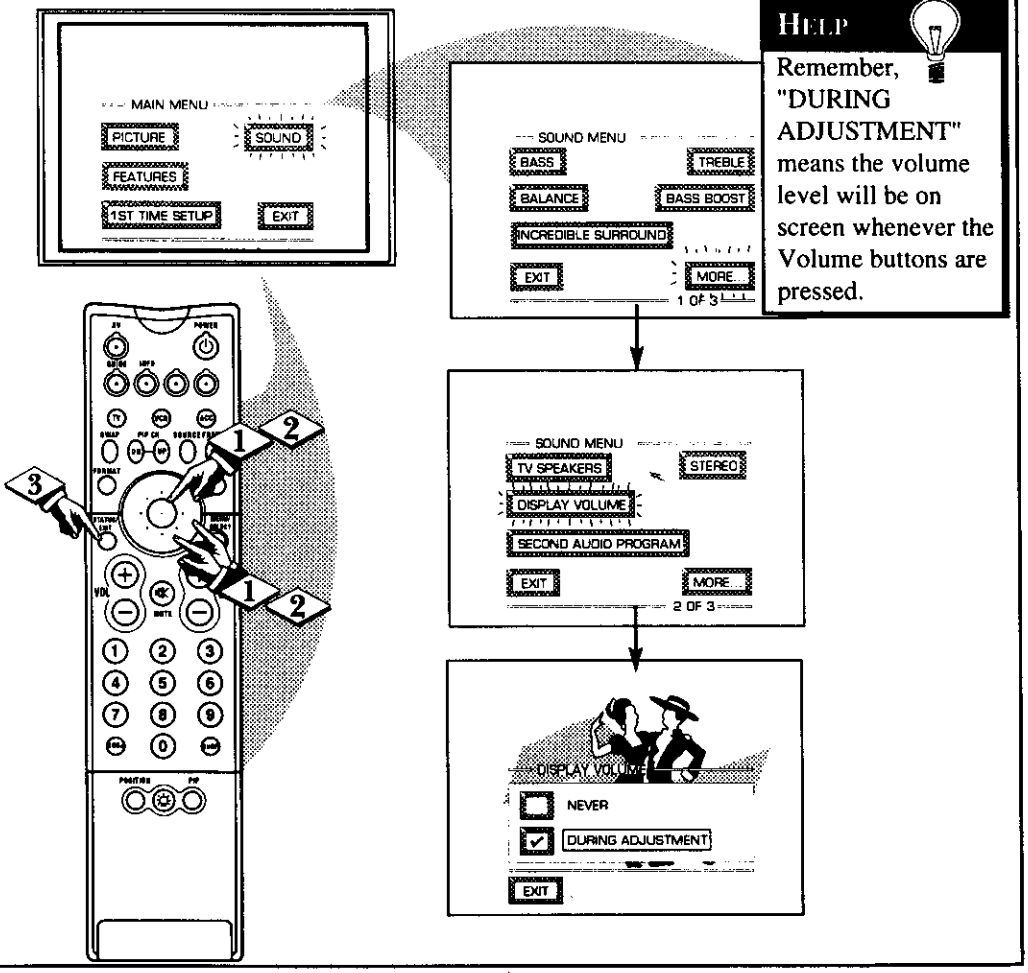
1. **Select DISPLAY VOLUME** control.

With SOUND MENU (2 of 3) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

2. **Press the MENU ring and center MENU** buttons to highlight and turn ON (✓) the DISPLAY VOLUME control.

3. **Press the STATUS** button to clear the screen.

STOP



SMART HELP

Remember, "DURING ADJUSTMENT" means the volume level will be on screen whenever the Volume buttons are pressed.

TV SPEAKERS

Would you like to hear TV programs through your audio hi-fi system? The TV's Variable Audio Output jacks and TV Speaker On/Off control work together to offer you this TV sound option.

BEGIN

1. **Connect the R(ight) and L(eft) VARIABLE AUDIO OUT** jacks on the TV to the R and L Audio Input jacks on your amplifier or sound system.

   Set the audio system's volume to normal listening level.

2. **Turn the TV** and audio system ON. You can now adjust the sound level coming from the audio system with the Volume ▲▼ buttons on the TV or remote.

3. To hear the TV sound from only the audio system speakers, **select TV SPEAKERS** control.

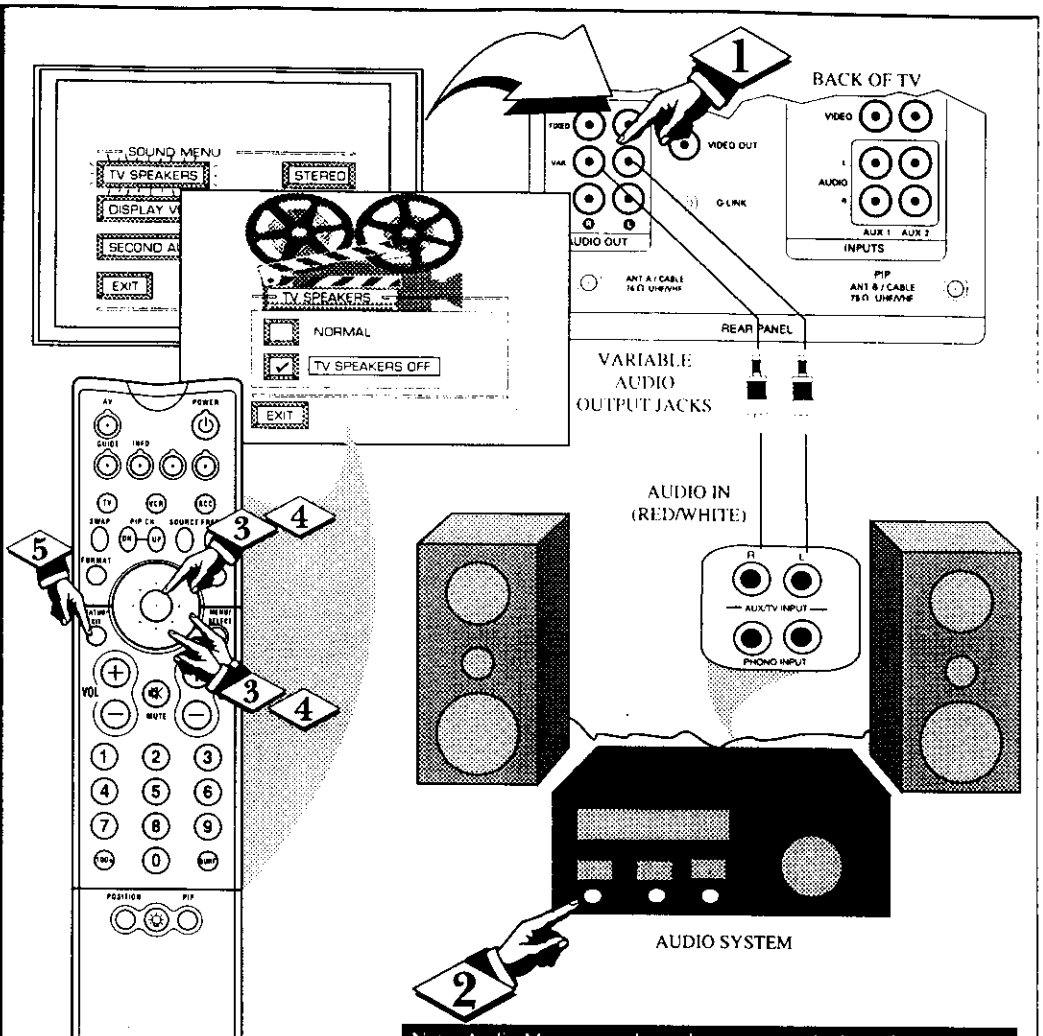
   With SOUND MENU (2 of 3) on screen, move the RED highlight with the outer MENU ◯ ring buttons. Then press the center MENU button to select the feature.

4. **Press the MENU ring and center MENU buttons** to highlight and turn OFF (✓) the TV SPEAKERS control.

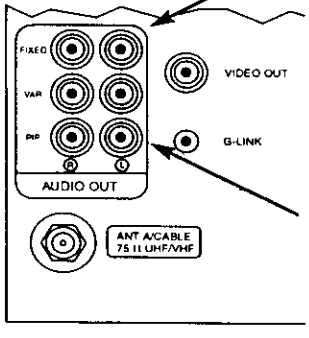
   You should now only hear TV sound coming from the audio system speakers.

5. **Press the STATUS** button to clear the screen.

STOP



Note: Audio Menu controls can be set separately dependent upon the current TV operating mode (NTSC/ANTENNA, AUX 4, AUX 5, etc.). For instance, the TV Speaker On/Off control can be set to "OFF" for normal NTSC TV viewing playback operation, while the same TV Speaker Audio control can also be set to "ON" in a AUX 4 or AUX 5 Input Source mode.



NOTE: The TV's FIXED AUDIO OUTPUT jacks can also be used for the playback of TV program sound with an external audio amplifier, or home theater hi-fi system, Connection of the FIXED AUDIO OUT(puts) is similar to the Variable Audio Outputs (as shown above). However, specific sound level adjustments will be made with the controls at the external amplifier or home sound system (instead of through the TV's audio level controls.)

NOTE: The TV's PIP AUDIO OUTPUT jacks can also be used for additional stereo playback options such as wireless transmitter headphone hook-up, or as an external amplifier connection source. However, with normal PIP feature operations (when the ANT A and ANT B Input sources are connected for use), the PIP AUDIO OUTPUTs will switch from stereo to monaural (mono) sound. Stereo sound will only be available with the TV's Main screen (or ANT A supplied signal) at that time.

SMART HELP

Remember, the audio system may have to be in AUX(iliary) mode to play sound from the TV (Outputs).

Note: When the TV SPEAKER control is set to "NORMAL" (for TV speaker operation) make sure the VARIABLE AUDIO OUTPUT control (see next page) is also set to "STEREO" in order for the TV's AUDIO OUTPUT jacks to work properly.

SOUND MENU CONTROLS (CONTINUED)

SURROUND SOUND

By adding optional external speakers to the TV's sound system, you can create the feeling of reflected sound that surrounds you at a movie theater or concert hall.

BEGIN

1. **Connect both external speakers** to the speaker wire terminals on the TV.

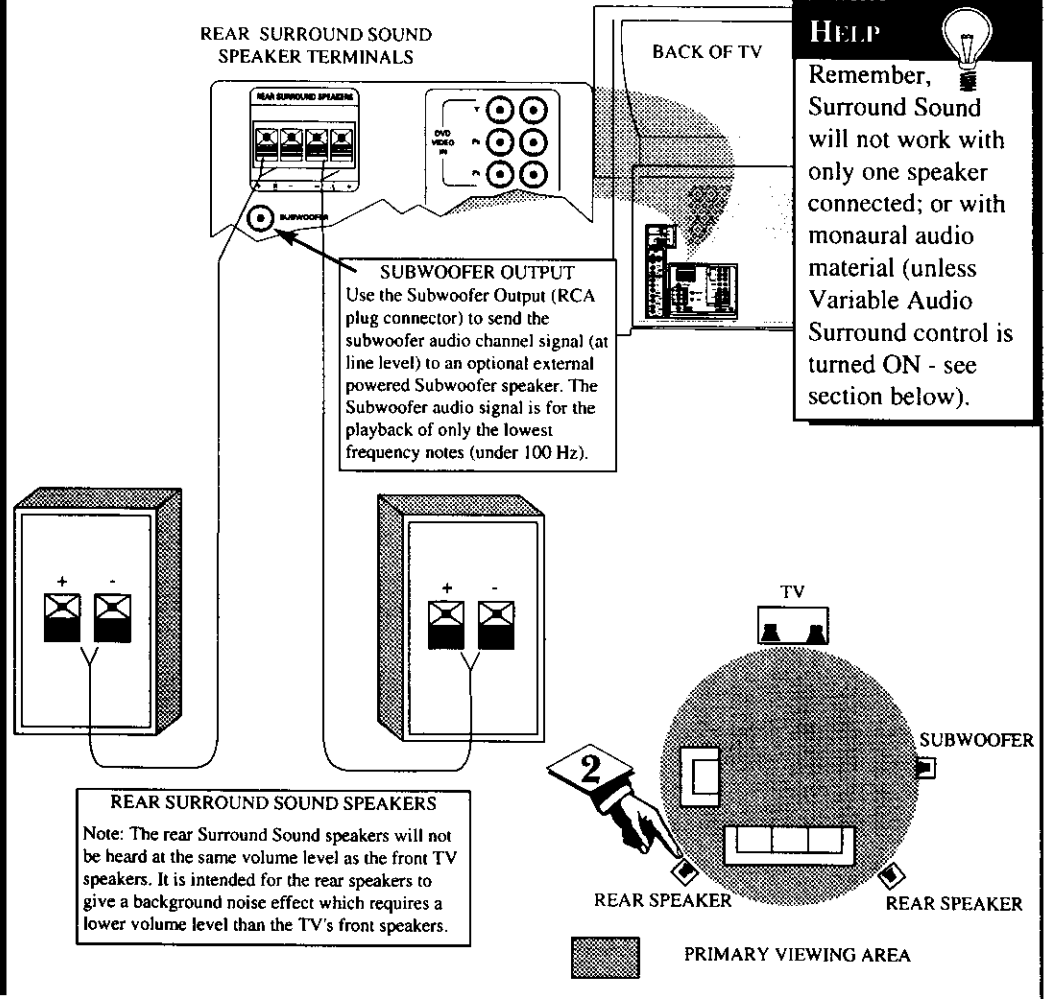
   Recommended speakers: 8 ohm, 15 watt minimum. Be sure the (+) and (-) speaker wires are connected to the correct R(ight) and L(eft) speaker terminals on the TV.

2. **Place the speakers** so the viewing area is between the TV and the rear surround speakers. (See overhead view drawing.)

3. **Turn TV ON** and place the STEREO control to the "STEREO IF AVAILABLE" (✓) position.

   After setup whenever a stereo signal is received the audio will be heard in Surround Sound.

STOP


REAR SURROUND SOUND SPEAKER TERMINALS
BACK OF TV
SUBWOOFER OUTPUT
Use the Subwoofer Output (RCA plug connector) to send the subwoofer audio channel signal (at line level) to an optional external powered Subwoofer speaker. The Subwoofer audio signal is for the playback of only the lowest frequency notes (under 100 Hz).
REAR SURROUND SOUND SPEAKERS
Note: The rear Surround Sound speakers will not be heard at the same volume level as the front TV speakers. It is intended for the rear speakers to give a background noise effect which requires a lower volume level than the TV's front speakers.
TV
SUBWOOFER
2
REAR SPEAKER
REAR SPEAKER
PRIMARY VIEWING AREA

SMART HELP

Remember, Surround Sound will not work with only one speaker connected; or with monaural audio material (unless Variable Audio Surround control is turned ON - see section below).

VARIABLE AUDIO OUTPUT

The TV's Variable Audio Output jacks can also be used for Surround Sound. Once they are connected to an external hi-fi system its speakers can be used for the playback of Surround Sound.

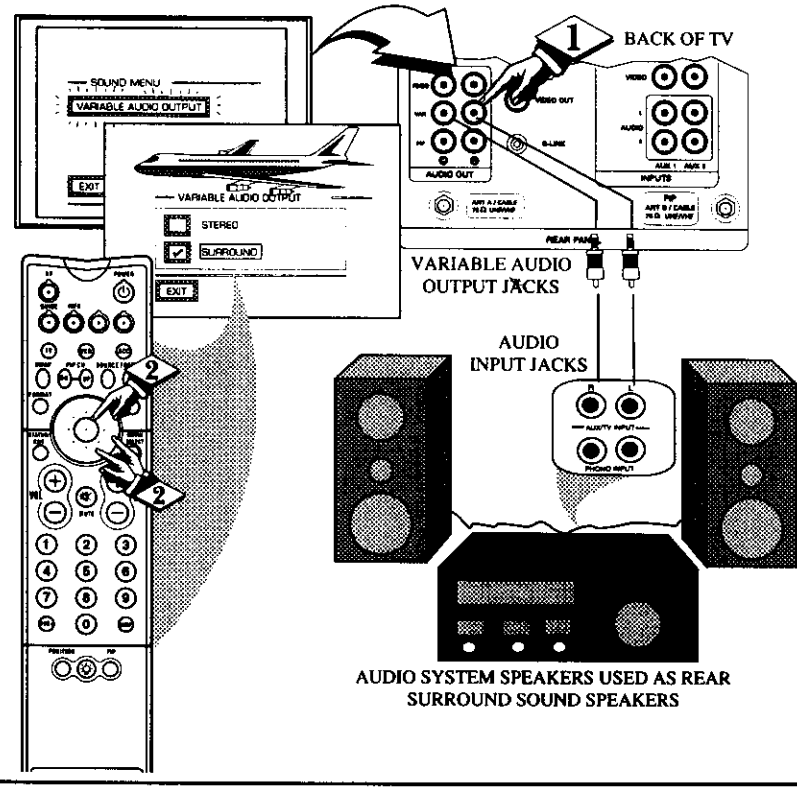
BEGIN

1. **Connect the R(ight) and L(eft) VARIABLE AUDIO OUT** jacks on the TV to the R and L Audio Input jacks on your amplifier or sound system.

2. **Turn TV ON** and place the VARIABLE AUDIO OUTPUT on screen control to the SURROUND (✓) position. (Sound Menu 3 of 3).

   Note:This will change the Left/Right channel audio line level signal at the Audio Output jacks to the same signal found at the TV's Surround Sound Speaker terminals.

STOP



Optional Surround Sound Connections

Extra speaker connections have been supplied on the rear of the TV. These extra connections are especially important for some of the optional Amplifier and multi-speaker arrangements that are possible with Dolby Pro Logic Surround Sound audio features.

For example: With the Surround mode multiple speakers are needed to complete the setup for proper DOLBY SURROUND sound playback-

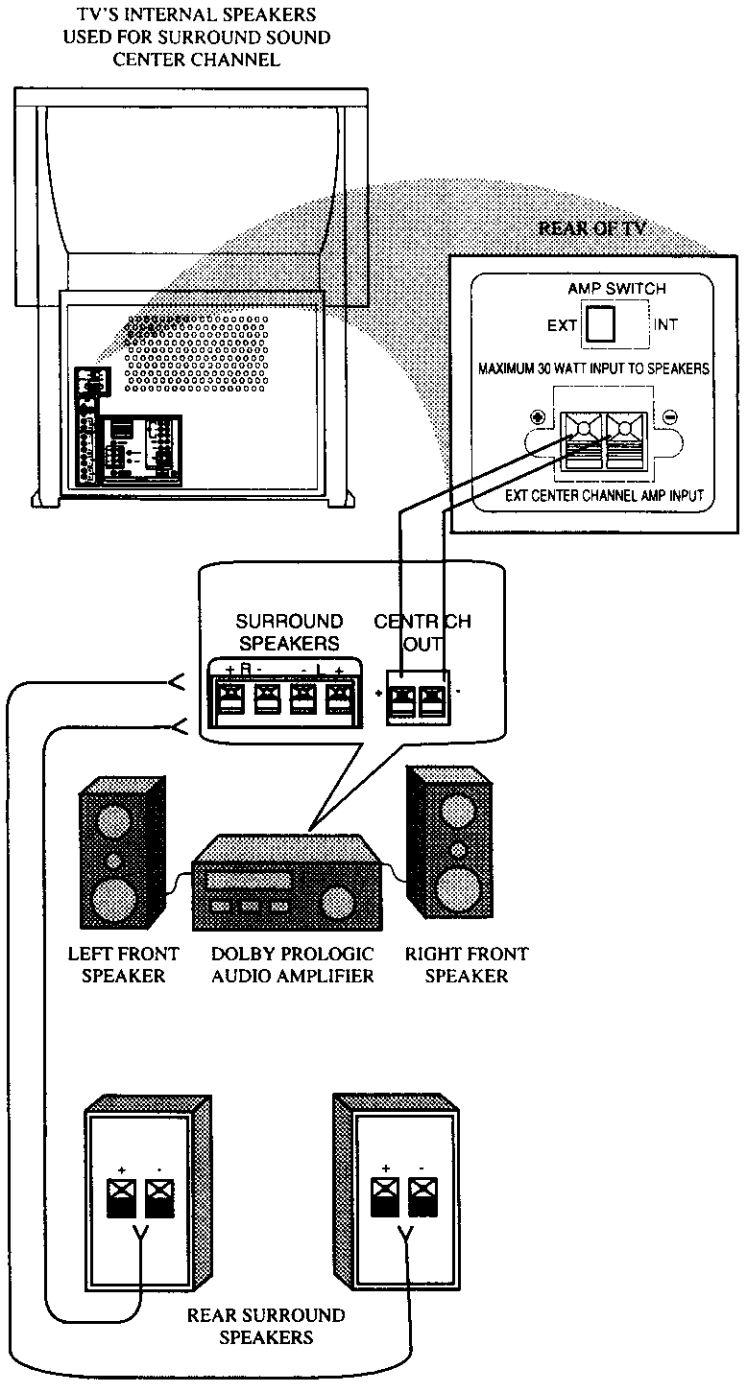
2 Front Left/Right Speakers
1 Center Channel Speaker
2 Rear Surround Speakers

The Front Left/Right, Center, and Rear Surround Speakers have their signals supplied by the connections located on the back of the Dolby ProLogic Audio Receiver.

Note: A CENTER CHANNEL AMP(plifier) INPUT is also located on the TV. This input can be used to connect the external Audio Receiver's Center Channel Output in order to play Center Channel sound through the internal TV speakers.

When an Audio Receiver is used as the audio source for the CENTER CHANNEL AMP INPUT:

- Place the TV's AMP SWITCH to the EXTERNAL position



USING THE AUDIO/VIDEO INPUT JACKS

AUX 1 VIDEO INPUTS

The TV's Audio/Video Input jacks are for direct picture and sound connections between the TV and a DVD (or VCR, etc.) that has Audio/Video (Composite) Output jacks.

To view the playback of a DVD program disc by using the Audio/Video Input jacks on the TV:

BEGIN

1. **Connect the VIDEO OUT** jack from the DVD to the AUX 1 VIDEO IN jack on the TV.

2. **Connect the AUDIO OUT** jacks R(ight) and L(eft) from the DVD to the AUX 1 AUDIO IN jacks on the TV.

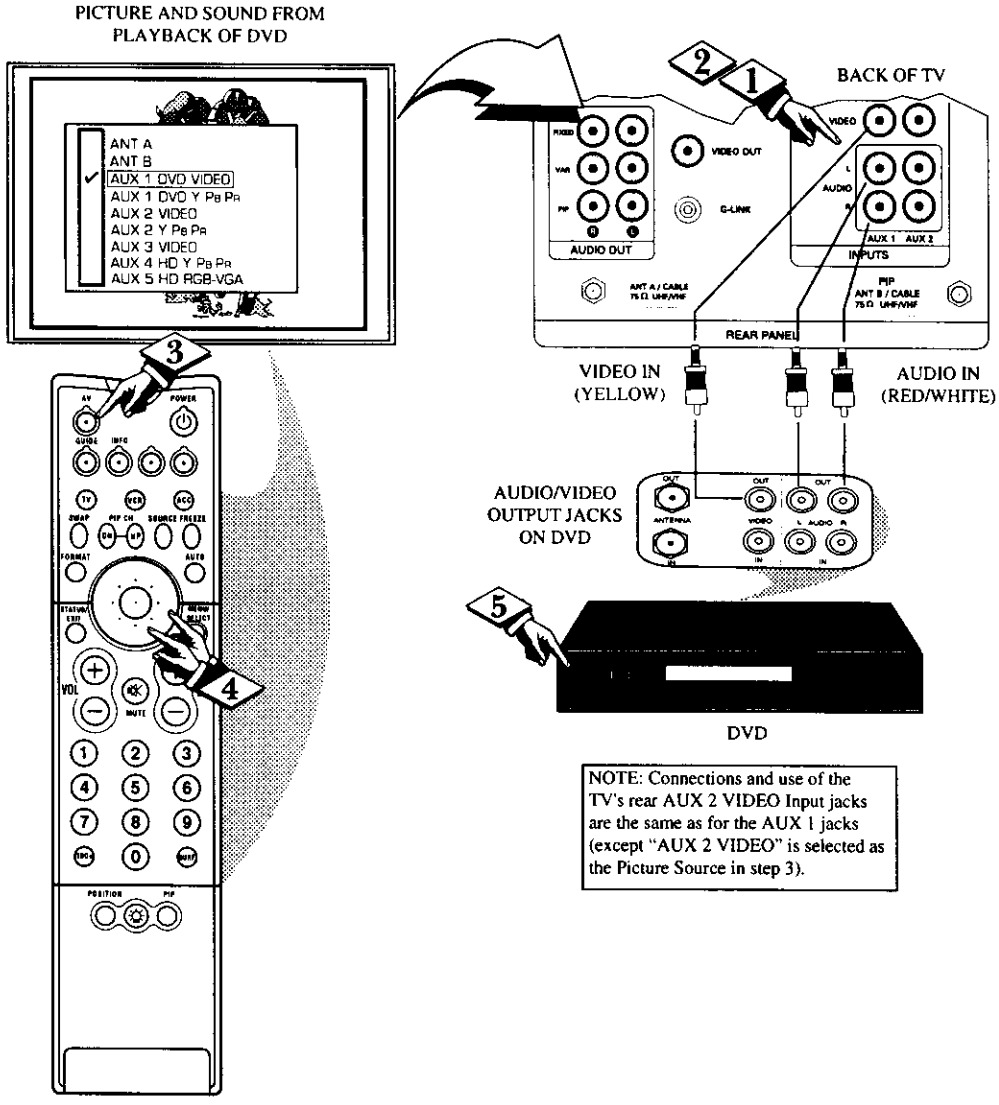
3. **Select the "AUX 1 DVD VIDEO" Picture Source** control on the TV.

   Press the A/V button on the remote (or the Source Select button on the front of the TV) to display the TV's Input Source control screen.

4. **Press the MENU ring and center MENU buttons** to highlight and select (✓) the AUX 1 DVD VIDEO mode.

5. **Turn the DVD ON** and press PLAY to view the playback disc tape on the TV.

STOP



NOTE: Connections and use of the TV's rear AUX 2 VIDEO Input jacks are the same as for the AUX 1 jacks (except "AUX 2 VIDEO" is selected as the Picture Source in step 3).

SMART HELP

Remember, if you have need for any connecting cables or devices contact your dealer or our Parts Information center (1-800-851-8885) to order any optional accessories.

AUX 3 VIDEO INPUTS

For more convenient Direct playback connections the TV's Side Video (AUX 3) Input panel can be used. Located on the TV's right side panel (angled toward the front for easy access) these Audio/Video Input jacks allow for quick connections, particularly for the playback of Camcorder tape recordings.

To view the playback of a Camcorder recording using the Audio/Video Input jacks on the side of the TV:

BEGIN

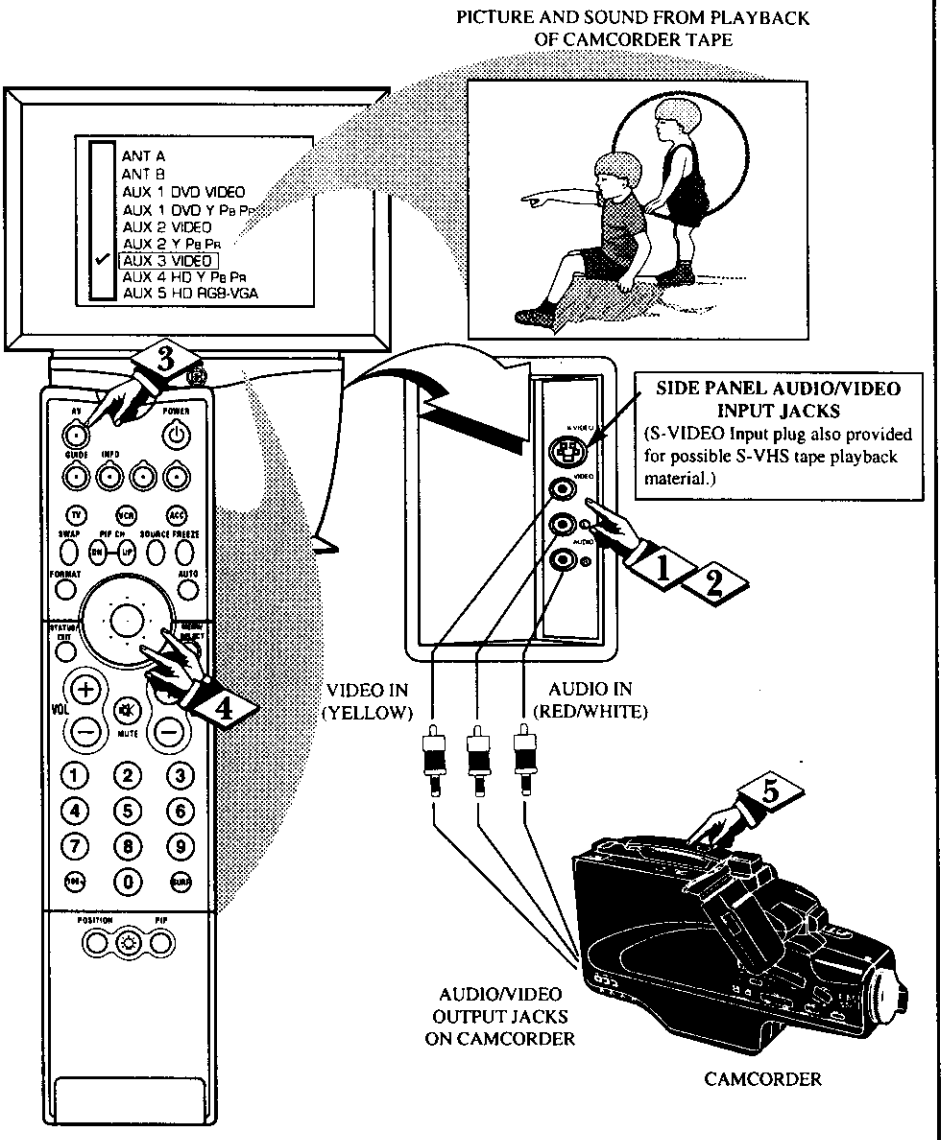
1. **Connect the VIDEO OUT** jack from the Camcorder to the VIDEO IN jack on the side of the TV.
2. **Connect the AUDIO OUT** jacks R(ight) and L(eft) from the Camcorder to the AUDIO IN jacks on the side of the TV.
3. **Select the "AUX 3 VIDEO" Picture Source** control on the TV.

   Press the A/V button on the remote (or the Source Select button on the front of the TV) to display the TV's Input Source control screen.
4. **Press the MENU ring and center MENU** buttons to highlight and select (✓) the AUX 3 VIDEO mode.
5. **Turn the Camcorder ON** and press PLAY to view the tape on the TV.

STOP

SMART HELP

Remember, if you have a single (monaural) Audio Output Camcorder, "Y" connectors are available to complete your connection. Contact your dealer or our Parts Information center (1-800-851-8885) to order any optional accessories.


PICTURE AND SOUND FROM PLAYBACK OF CAMCORDER TAPE
ANT A
ANT B
AUX 1 DVD VIDEO
AUX 1 DVD Y PB PR
AUX 2 VIDEO
AUX 2 Y PB PR
AUX 3 VIDEO
AUX 4 HD Y PB PR
AUX 5 HD RGB-VGA
SIDE PANEL AUDIO/VIDEO INPUT JACKS
(S-VIDEO Input plug also provided for possible S-VHS tape playback material.)
VIDEO IN (YELLOW)
AUDIO IN (RED/WHITE)
AUDIO/VIDEO OUTPUT JACKS ON CAMCORDER
CAMCORDER

AUX 1 - S-VIDEO INPUTS

The S(uper)-Video connection on the rear (and Side Panel) of the TV can give you better picture detail and clarity for the playback of S-VHS VCR tapes or DVDs than the normal antenna (RF Signal) or Video (Composite) picture connections.

Note: The VCR or DVD Player) must have a S-VIDEO OUT(put) jack in order for you to complete the connections shown on this page.

BEGIN

1. **Connect the S-VIDEO (S-VHS) OUT** jack from the VCR to the S-VIDEO AUX 1 IN(put) jack on the TV.
   The S-VIDEO connecting cable will be supplied with the S-VHS VCR (or DVD Player).

2. **Connect the AUDIO OUT** jacks R(ight) and L(eft) from the VCR to the AUDIO AUX 1 IN(put) jacks on the TV.

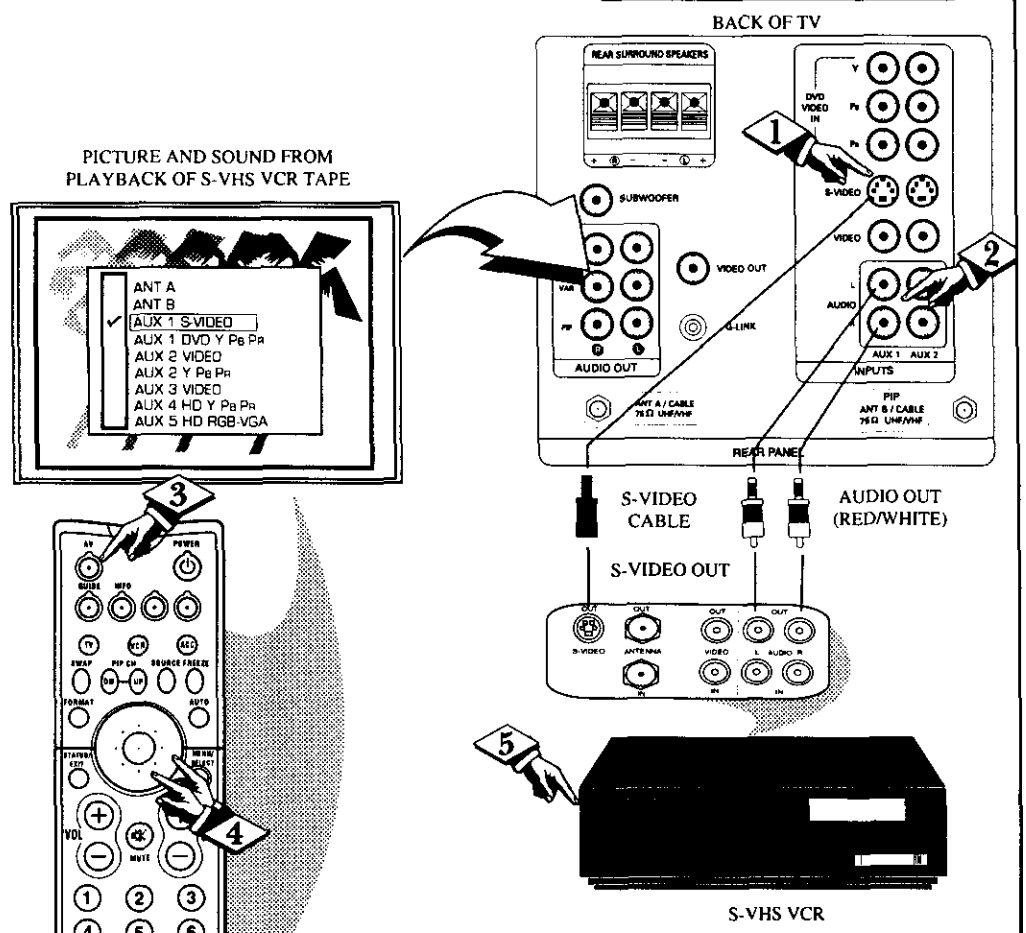
3. **Select the "AUX 1 S-VIDEO" Picture Source** control.
   Press the A/V button on the remote (or the Source Select button on the front of the TV) to display the TV's Input Source control screen.
   The "AUX 1 S-VIDEO" picture source option appears only when a S-VIDEO cable has been connected to the TV's AUX 1 IN(puts).

4. **Press the MENU ring** ◎ **and center MENU** buttons to highlight and select (✓) the AUX 1 S-VIDEO mode.

5. **Turn the VCR ON** and place it in the S-VIDEO (or S-VHS) playback mode. Insert S-VHS cassette tape and playback in a normal manner.

STOP

NOTE: Connections and use of the TV's AUX 2 and AUX 3 S-VIDEO Input jacks are the same as for the AUX 1 S-VIDEO jacks (except "AUX 2 or AUX 3 S-VIDEO" is selected as the Picture Source in step 3).



NOTE: A CD-i (Compact Disc Interactive) player, Video Game, or other S-VIDEO accessory can be hooked up to the TV using this type of connection. Please be aware that such video sources, which show a constant non-moving pattern on the TV screen, can cause picture tube damage. When not in use turn your video accessories OFF. Also, regularly alternate the use of video sources with normal TV viewing.

USING THE AUDIO/VIDEO INPUT JACKS (CONTINUED)

COMPONENT VIDEO INPUTS

Component Video Inputs provide for the highest possible color and picture resolution in the playback of digital signal source material such as with DVD players. The color difference signals (PB, PR) and the luminance (Y) signal are connected and received separately which permits for improved color bandwidth information (not possible when using composite video or S-Video connections).

BEGIN

1. **Connect the Component (Y PB PR) VIDEO OUT** jacks from the DVD player to the (Y PB PR) VIDEO IN(put) jacks on the TV.

2. **Connect the AUDIO OUT** jacks R(ight) and L(eft) from the DVD player to the AUX 1 AUDIO IN jacks on the TV.

3. **Select the "AUX 1 Y PB PR" Picture Source** control on the TV.

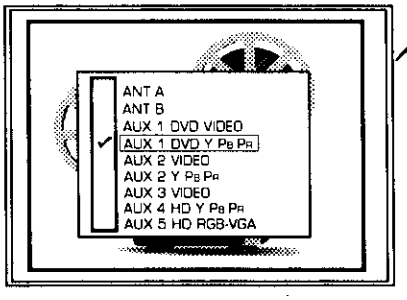
   Press the A/V button on the remote (or the Source Select button on the front of the TV) to display the TV's Input Source control screen.

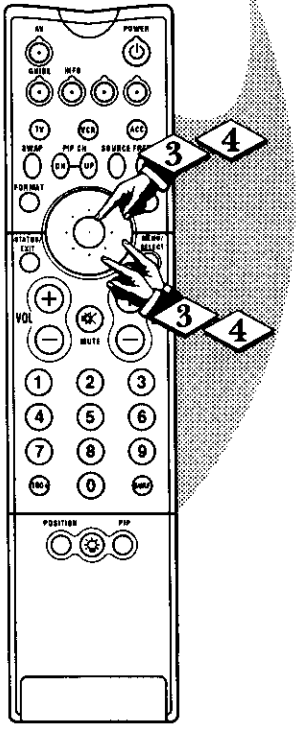
4. **Press the MENU ring and center MENU** buttons to highlight and select (✓) the AUX 1 Y PB PR mode.

5. **Turn the DVD player ON** and press PLAY to view the source material playback on the TV.

STOP

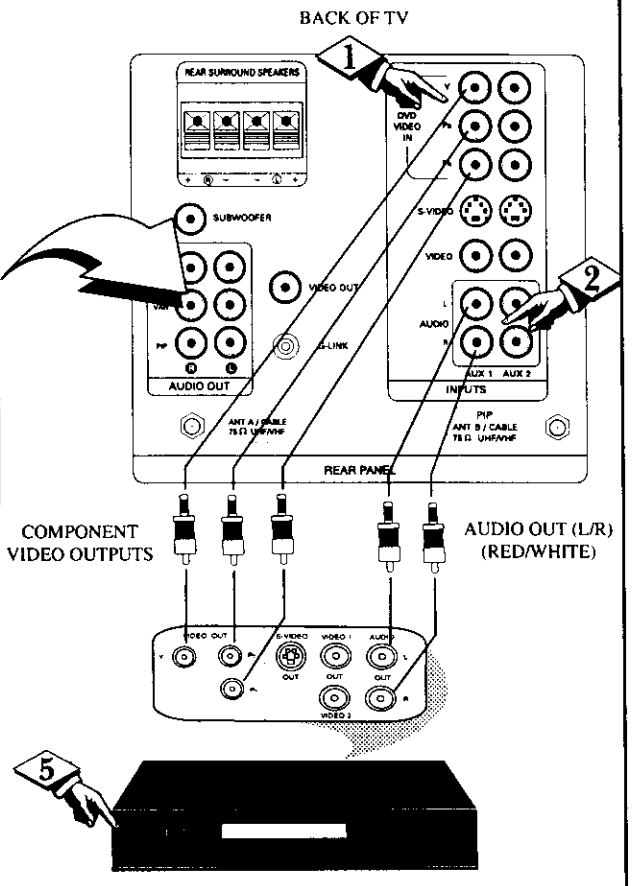
PICTURE AND SOUND FROM PLAYBACK OF DVD SOURCE MATERIAL





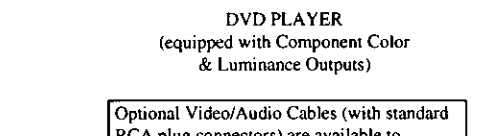
NOTE: Connections and use of the TV's rear AUX 2 Y PB PR Input jacks are the same as for the AUX 1 jacks (except "AUX 2" Y PB PR is selected as the Picture Source in step 3).

BACK OF TV



COMPONENT VIDEO OUTPUTS

AUDIO OUT (L/R) (RED/WHITE)



DVD PLAYER
(equipped with Component Color & Luminance Outputs)

Optional Video/Audio Cables (with standard RCA plug connectors) are available to complete your Component Input Jack connections. Contact your dealer, or our Parts Information Center (1-800-851-8885) to order any optional accessories.

SMART HELP

The description for the component video connectors may differ depending on the DVD player or accessory digital source equipment used (e.g. Y PB PR; R-Y/B-Y/Y; Cr/Cb/Y, etc.). Although abbreviations and terms may vary, the letters "B" and "R" stand for the blue and red color component signal connectors, and "Y" indicates the luminance signal. Refer to your DVD or digital accessory Owner's Manual for definitions and connection details.

AUDIO/VIDEO OUTPUTS

The Audio/Video Output jacks on the TV can be used to record TV programs on VCRs which have Audio/Video Input jacks.

To record TV programs by using the Audio/Video jacks on the TV:

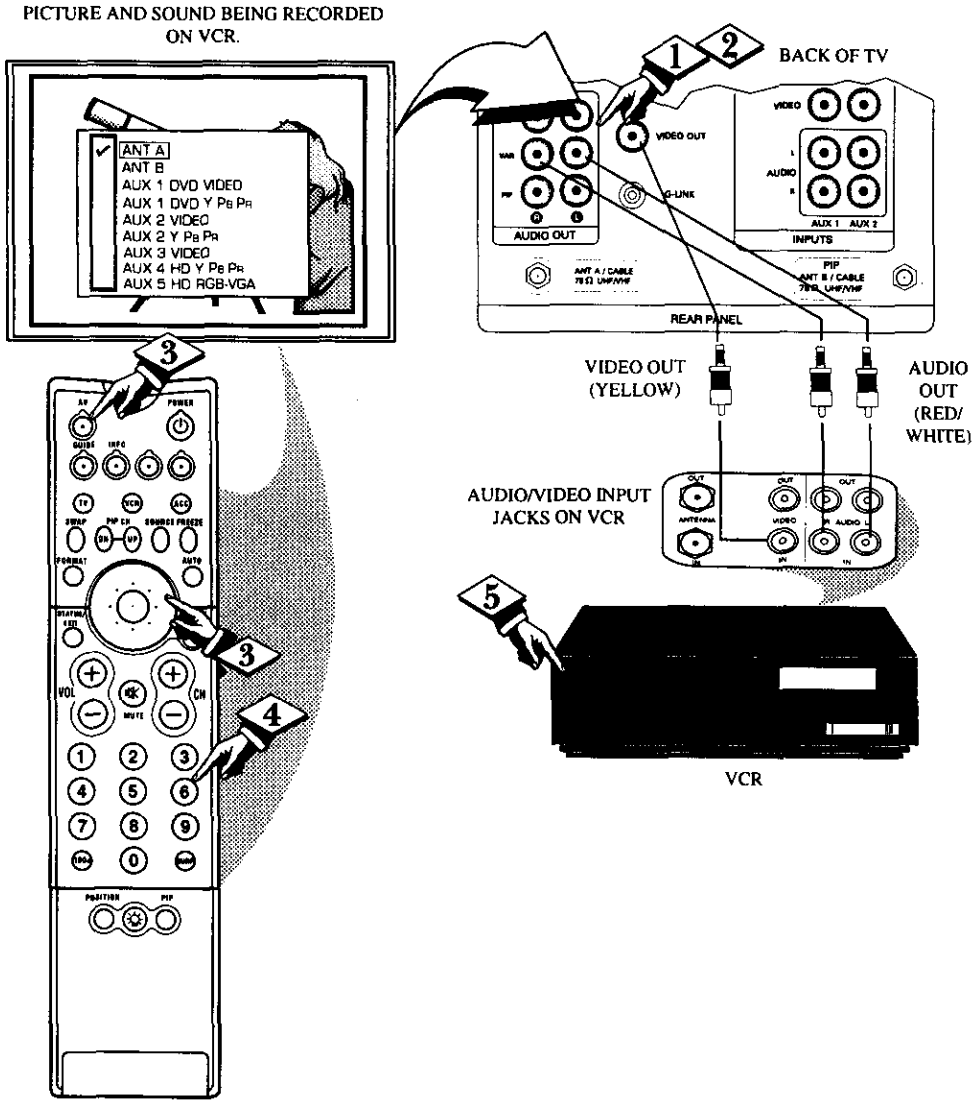
BEGIN

1. **Connect the VIDEO OUT** jack from the TV to the VIDEO IN jack on the VCR.
2. **Connect the AUDIO OUT** jacks R(ight) and L(eft) from the TV to the AUDIO IN jacks on the VCR.
3. **Select the "ANTENNA A" Picture Source** control on the TV.

   Press the A/V button on the remote (or the Source Select button on the front of the TV) to display the TV's Input Source control screen.

   Press the MENU ring and center MENU buttons to highlight and select (✓) the ANTENNA A mode.
4. **Select the channel on the TV** that you want to record.
5. **Turn the VCR ON.** Put a cassette tape in the unit and place the VCR in the RECORD mode.

STOP



SMART HELP

Remember, If the VCR has an INPUT SELECTOR switch, place it in the LINE or CAMERA position.

Unattended Timer Recordings with a VCR are possible, but not recommended with this connection since the TV must be left ON for the VCR to record.

VGA/RGB/HDCOMPONENT

Another function with your TV is for the connection and use of Personal Computers (PCs), and other High Definition (HD) digital source equipment (through the use TV's Monitor inputs and display mode). Dedicated HD Audio Input jacks (located on the rear of the TV) are also paired to the external source Monitor Video Inputs (VGA and HD Component Video In) for audio playback connections as well.

For example: To connect a Philips DVX8000 Multimedia Home Theater (MMHT) for monitor mode display use on the TV:

BEGIN

1. **Connect a 15 pin VGA signal cable (optional)** from the VGA (or SVGA) jack on the select auxiliary equipment (example: DVX8000 MMHT) to the VGA Input jack on the TV.

2. **Connect the Left/Right HD INPUT AUDIO IN** jacks on the TV to the (L/R) Audio Output jacks (labeled Front) on the DVX8000 MMHT.

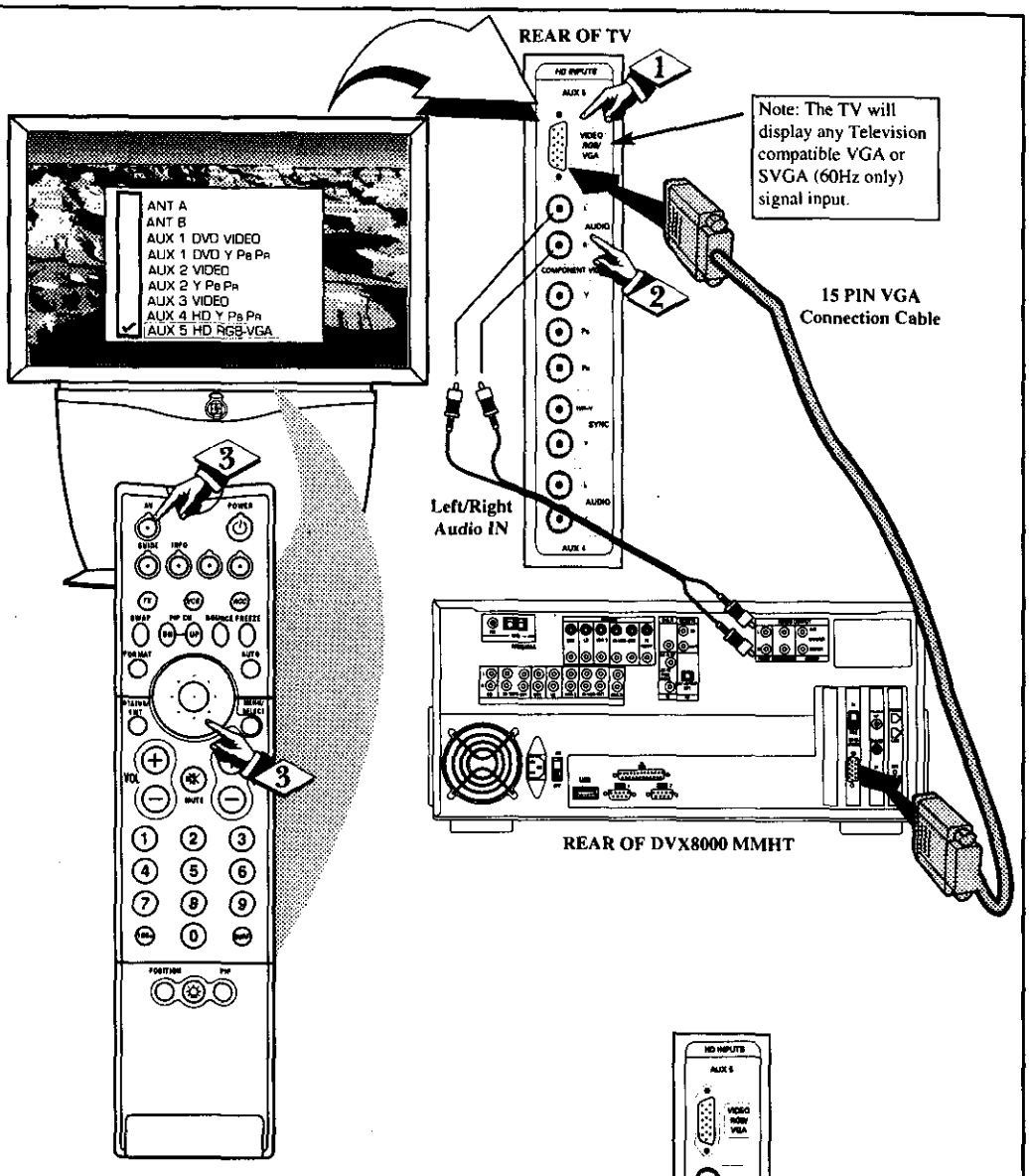
3. **Press the A/V button on the** remote (or the Source Select button on the front of the TV) to select the AUX 5 HD RGB/VGA Monitor Input mode.

   Press the MENU ring and center MENU buttons to highlight and select (✓) the AUX 5 HD RGB/VGA mode.

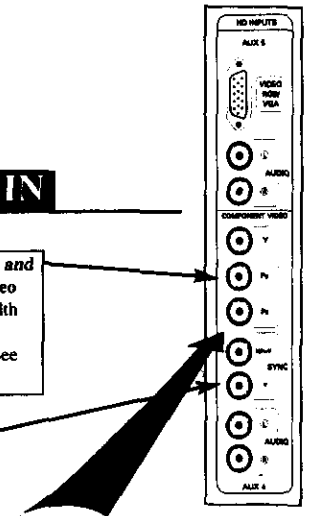
4. **Use the DVX8000 MMHT** as the video (and/or audio) playback source for material to be displayed on the TV's screen.

SMART HELP

Note: The TV's video display may temporarily appear misconverged during the initialization of certain VGA input connected PC programs (i.e., DOS). Once the PC program has completed its "bootup" phase, normal signal level processing will reoccur and the TV display will return to normal.


REAR OF TV
ANT A
ANT B
AUX 1 DVD VIDEO
AUX 1 DVD Y Pb Pr
AUX 2 VIDEO
AUX 2 Y Pb Pr
AUX 3 VIDEO
AUX 4 HD Y Pb Pr
AUX 5 HD RGB-VGA
Note: The TV will display any Television compatible VGA or SVGA (60Hz only) signal input.
15 PIN VGA Connection Cable
Left/Right Audio IN
REAR OF DVX8000 MMHT

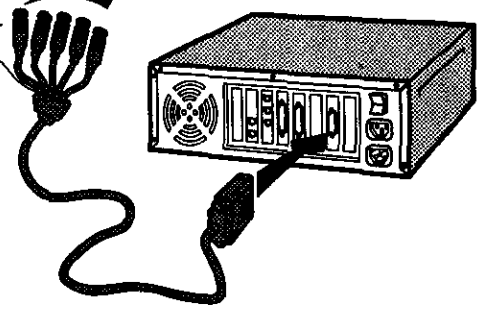
HD COMPONENT VIDEO IN



- ***Separate Red/Green/Blue (Luminance-Y and Color Difference-Pr/Pb) Component Video Inputs*** provide for improved color bandwidth information and highest possible picture resolution for digital source connections. (See BNC Connector information below.)

- **H/H + V** (for combined Horizontal/Vertical sync signals) or V(ertical) sync inputs control the display of a RBG sourced picture in the left-to-right dimension and from top-to-bottom.

- **BNC (Bayonet Connectors)** are available to attach a computer to the TV for use as a monitor display. The optional BNC cables twist and secure to the individual *Red/Green/Blue and Horizontal/Vertical* Sync(hronization) component Video Inputs on the rear of the TV. This type connection ensures optimum video and color reproduction performance from a computer, or other external High Definition playback source.



MONITOR MENU CONTROLS

The Monitor Menu feature controls are to aid you in setting up the TV for the best in display image quality. Generally, the Monitor feature controls cover the basics in color and video image screen adjustments. A variety of Monitor Audio Input controls are also available for various TV speaker sound adjustments. (See the Audio Adjustments note to the right for further details on AUX(iliary) and NTSC/Antenna mode sound controls.

BEGIN

1. **Press the A/V button** (or the Select Source button on the front of the TV) to place the TV in the desired High Definition (HD) display mode (AUX 4 HD Y PB PR; or AUX 5 HD RGB-VGA).

2. **Press the MENU ring** buttons to choose any of the individual controls you wish to adjust for the selected HD mode. Then press the center Menu button to select the highlighted control.

3. **Press the Menu ring and center Menu** buttons to adjust the selected control.

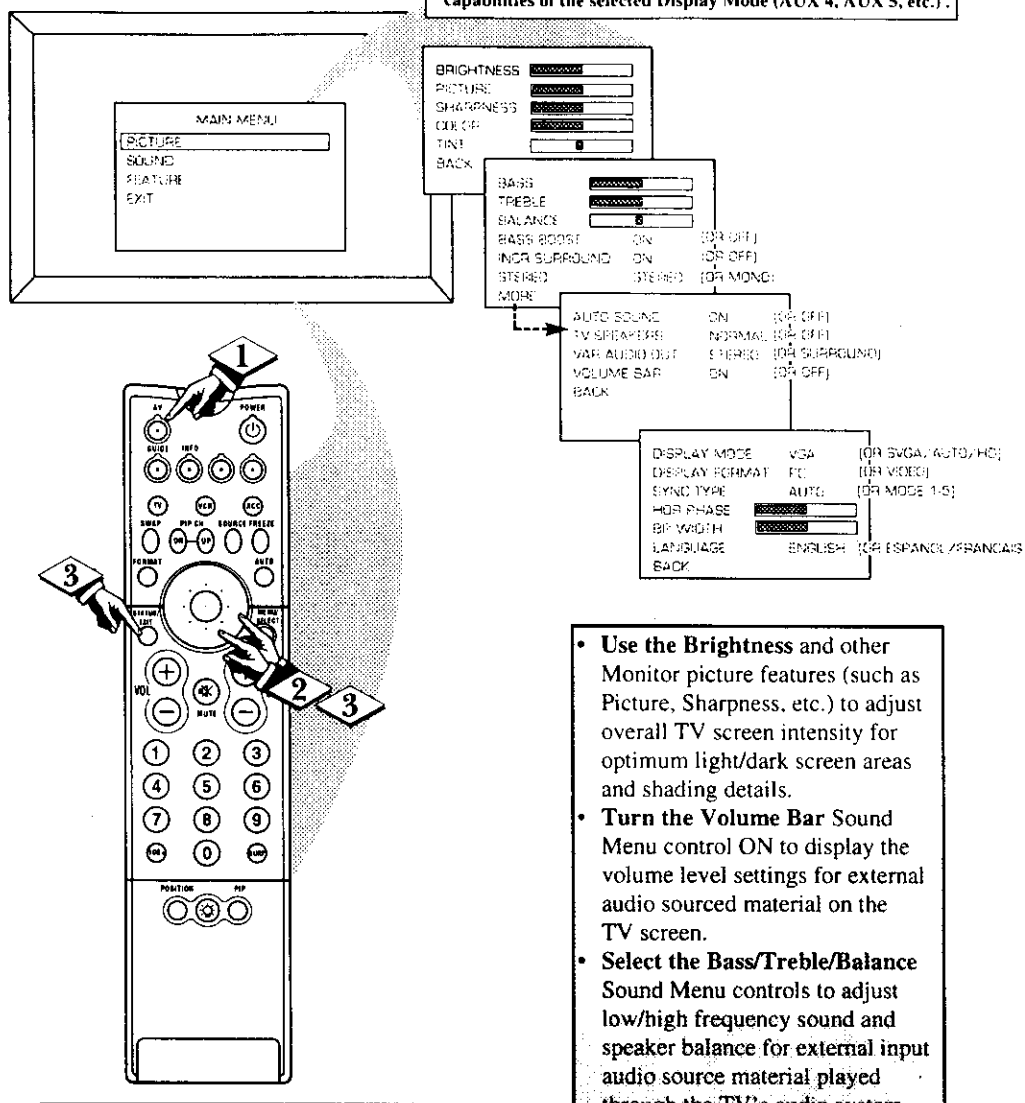
4. **Press the STATUS** button on the remote to clear the screen after you have finished with all of your feature control adjustments.

STOP

SMART HELP

Certain barscale Monitor Feature Menu adjustments (such as Brightness, Picture, etc.) will display separate control panel screens for individual settings. Repress the Menu button (on the remote or local keyboard) to return the TV to the Monitor Menu when control adjustments are complete.

• **Note: The list of Monitor Menu features (and their individual control settings) will change or readjust according to the capabilities of the selected Display Mode (AUX 4, AUX 5, etc.).**



Note: Audio Menu controls can be set separately dependent upon the current TV operating mode (NTSC/ANTENNA, AUX 4, AUX 5, etc.). For instance, the TV Speaker On/Off control can be set to "ON" for normal NTSC TV viewing playback operation; while the same Audio control can also be set to "OFF" in a AUX 4 or AUX 5 Input Source mode.

- **Use the Brightness** and other Monitor picture features (such as Picture, Sharpness, etc.) to adjust overall TV screen intensity for optimum light/dark screen areas and shading details.
- **Turn the Volume Bar** Sound Menu control ON to display the volume level settings for external audio sourced material on the TV screen.
- **Select the Bass/Treble/Balance** Sound Menu controls to adjust low/high frequency sound and speaker balance for external input audio source material played through the TV's audio system.
- **Use the Display Mode and Format** Feature Menu controls to set the TV for the type of external monitor display mode source (VGA, AUTO, SVGA, EXT HD); and the TV's display screen format used (PC, NORMAL, WIDESCREEN).
- **Additional Sync Type, Horizontal Phase, Back Porch (BP) Width** Feature Menu controls can be used to adjust for color shifts, black level, and various other display screen imagery.
- **Use the LANGUAGE** control to set the HD Menu control screens for English, Spanish (Espanol), or French (Francais) language term displays.

AUTO PICTURE

With Auto Picture you can set a number of video and audio controls to your own personal preference. Once the individual controls have been adjusted to the levels you desire, use the list of Auto Picture feature category titles to quickly reselect these "personalized" settings contained within the memory of the TV. (See the next page for more details on the labeling options and use of Auto Picture.)

BEGIN

1. **Press the AUTO** button on the remote.

   Press the center MENU button to select the Auto Picture feature (highlighted in RED).

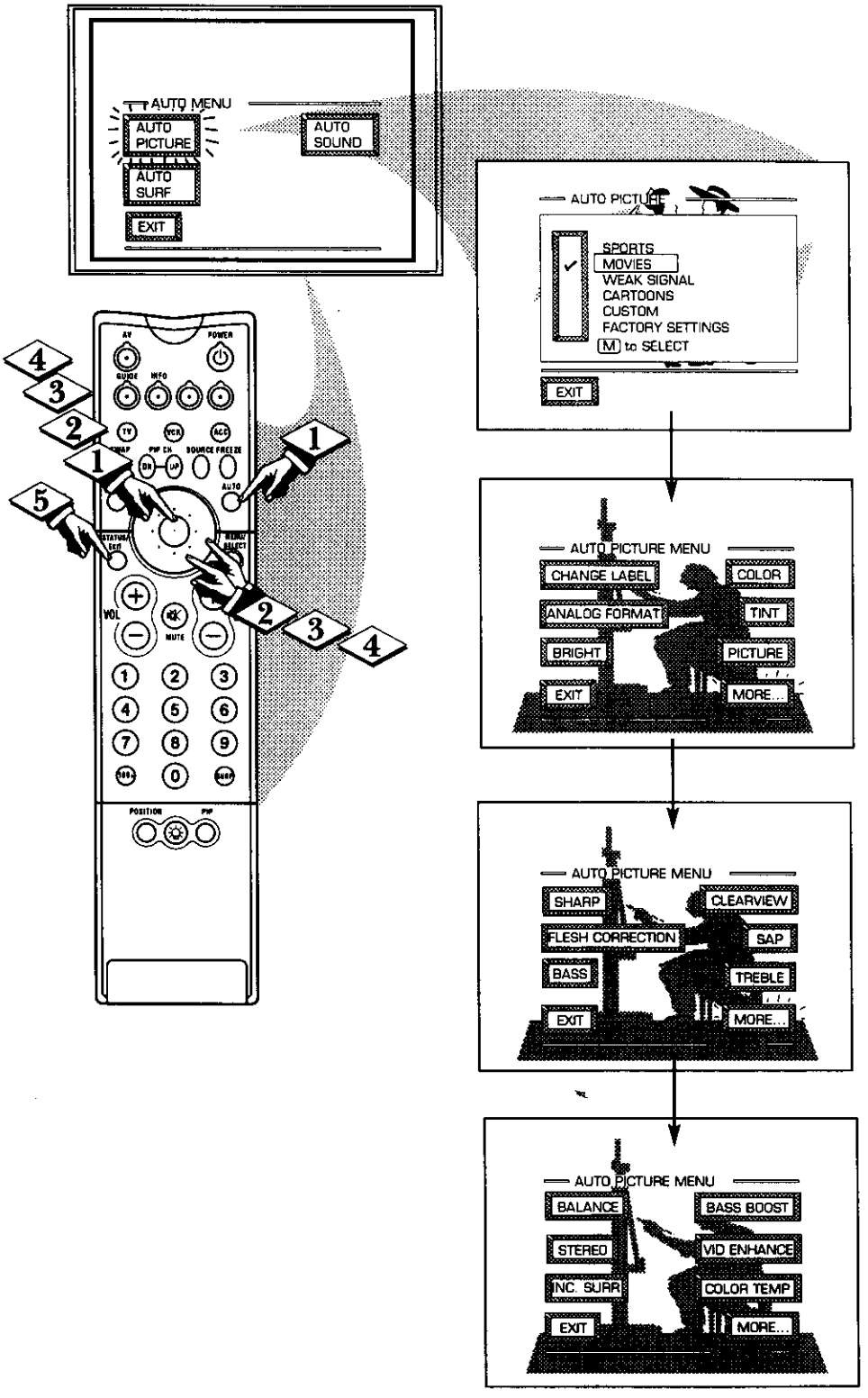
2. **Press the outer MENU ring (top and bottom)** buttons to highlight the category list for Auto Picture. Press the center MENU button to select (✔) the desired title.

3. **Press the MENU ring** ◎ buttons to choose any of the individual controls you wish to adjust for the Auto Picture selected title. Then press the center Menu button to select the highlighted control.

4. **Press the Menu ring** ◎ **and center Menu** buttons to adjust the selected control.

5. **Press the STATUS** button on the remote to clear the screen after you have finished with all of your Auto Picture feature control adjustments.

STOP



SMART HELP

Note: Select the "FACTORY SETTINGS" category to automatically return the TV to the video and audio control levels preset at the factory prior to product shipment.

REMOTE CONTROL OPERATION (CONTINUED)

AUTO PICTURE

Following your initial setup adjustments (see previous page), just select the desired Auto Picture category in order to place the TV to the personalized set of audio and video control settings for that title.

BEGIN

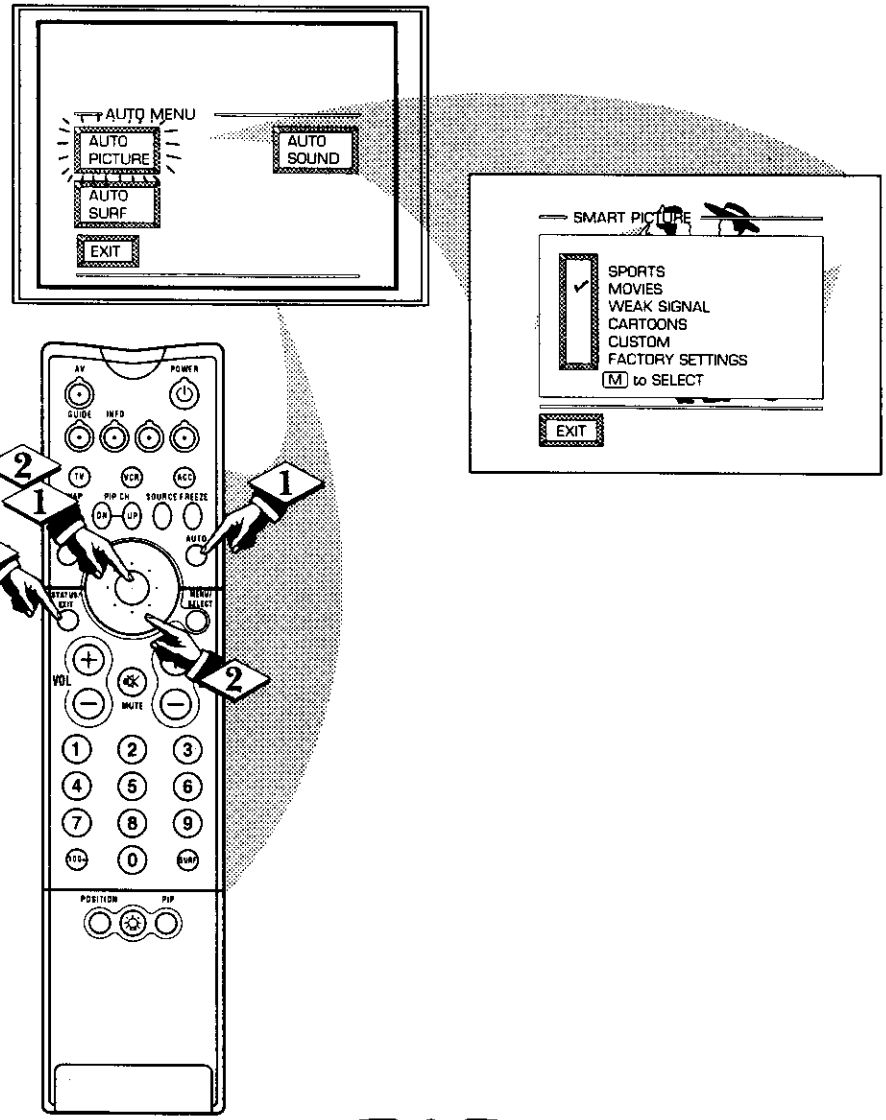
1. **Press the AUTO** button on the remote.

   Then press the MENU button to select the AUTO PICTURE control feature.

2. **Press the outer MENU ring** (top and bottom) buttons with the list of "AUTO PICTURE" categories on the TV screen to highlight the desired category. Then press the center Menu button to select the audio and video control settings for that particular title.

3. **Press the STATUS** button on the remote to clear the screen.

STOP



CHANGE LABEL

The "CHANGE LABEL" control can be used to change the title of a AUTO PICTURE setting into a name or label that may be easier for you to remember.

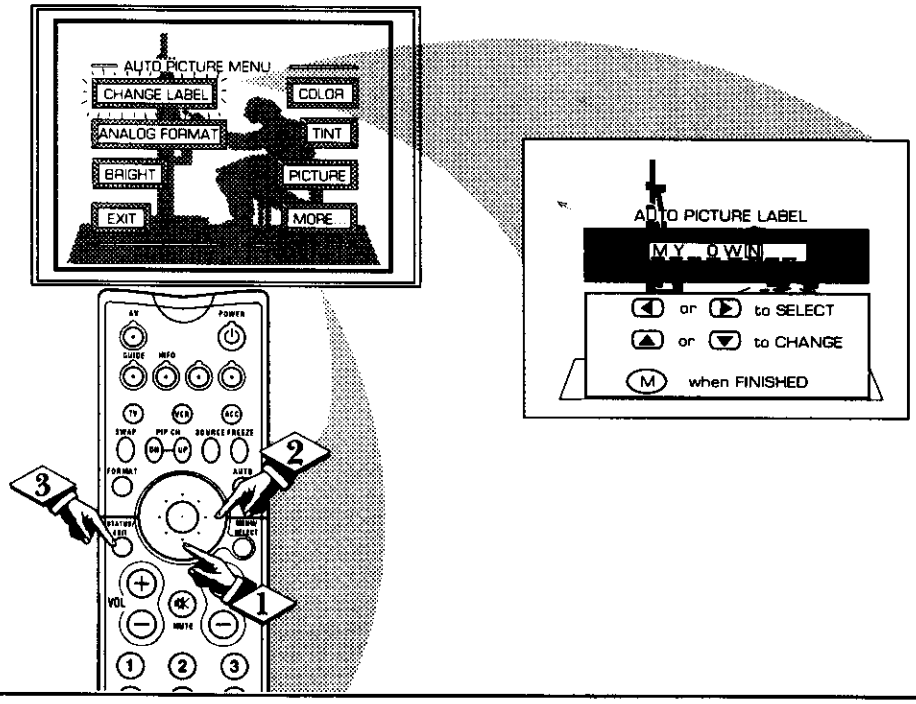
BEGIN

1. With the AUTO PICTURE "CHANGE LABEL" control on the screen, **press the outer MENU ring (top and bottom)** buttons to spell out a new label or title for the selected AUTO PICTURE category.

2. **Press the outer MENU ring (left and right)** buttons to move the red highlight to each letter space.

3. **Press the STATUS** button to clear the screen when the new label is finished.

STOP



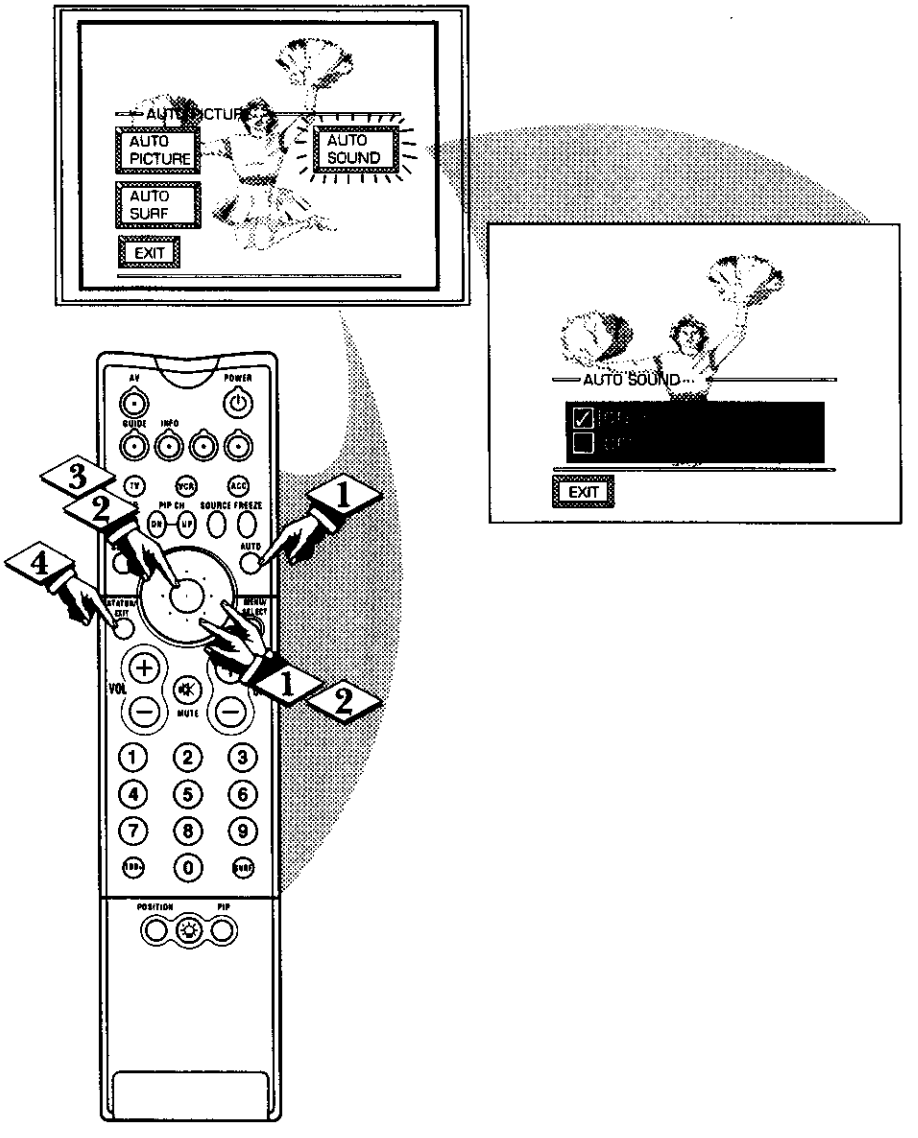
AUTO SOUND

Are you tired of the sound of commercials following you throughout the house? Auto Sound allows you to preset a desired volume level that the TV sound will not go above. This makes for an even, more consistent sound by reducing the "peaks" and "valleys" that can occur during commercials.

BEGIN

1. **Press the AUTO button** on the remote.
2. **With the AUTO Menu** on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the highlighted Auto Sound control.
3. **Press the Menu ring and the center Menu** buttons to turn the Auto Sound control ON (or OFF.)
4. **Press the STATUS** button to clear the screen when completed.

STOP



SMART HELP

Remember, Auto Sound works for sound levels coming from either the Antenna/Cable input on the rear of the TV (RF audio); or the Auxiliary (VCR/AUX IN) audio inputs.

When using a Cable Converter Box with the Auto Sound Control ON, the TV's volume level may take up to ten seconds to gradually increase to normal listening levels (when the TV's first turned on). This is considered NORMAL with various Cable Converter Box use.

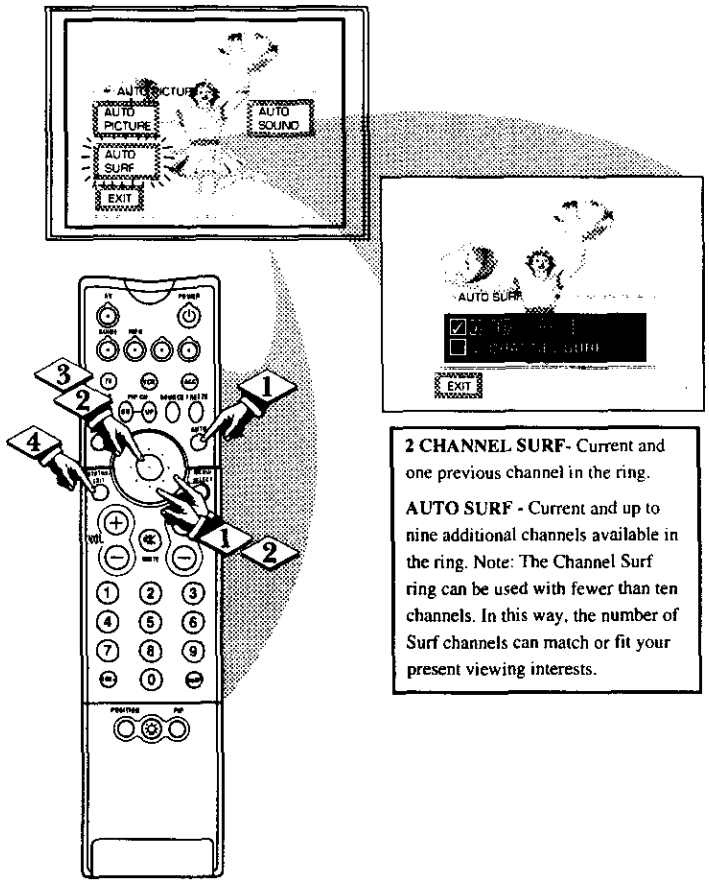
2-CHANNEL SURF/AUTO SURF

A "list" or series of previously viewed channels can be selected with the SURF button on your remote control. With this feature you can easily switch between different TV programs that currently interest you. The Auto Surf control allows you to set up to 10 channels in its quick viewing "list".

BEGIN

1. **Press the AUTO button** on the remote.
2. **With the AUTO Menu** on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the highlighted Auto Surf control.
3. **Press the Menu ring then the center Menu** button to select either Auto Surf or 2-Channel Surf. (See explanation of Surf options with the illustration on this page.)
4. **Press STATUS button** on the remote control to clear the screen.

STOP



2 CHANNEL SURF- Current and one previous channel in the ring.

AUTO SURF - Current and up to nine additional channels available in the ring. Note: The Channel Surf ring can be used with fewer than ten channels. In this way, the number of Surf channels can match or fit your present viewing interests.

SMART HELP

To Use 2-Channel Surf:

With the 2-Channel Surf control ON, select the two desired channels for viewing with the number buttons on the remote control. Then press the SURF button on the remote to "toggle" between the two selected channels.

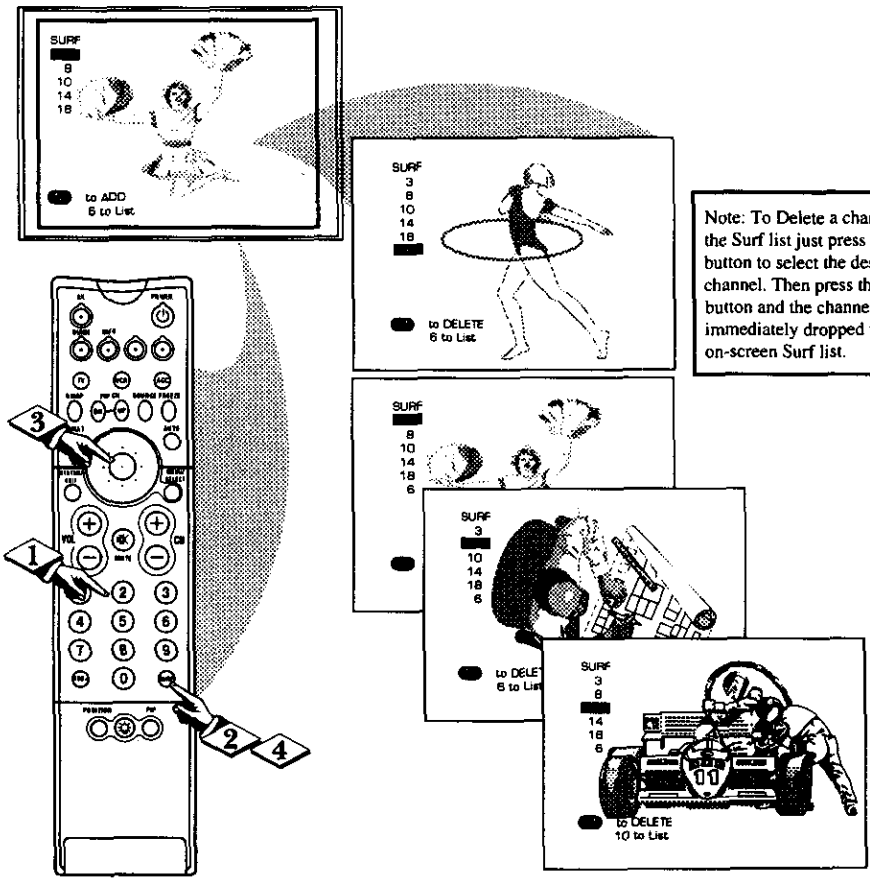
HOW TO USE AUTO SURF

BEGIN

1. **With the Auto Surf control ON (see above), select a desired channel** for viewing. You can use the number buttons on the remote (or the Channel ▲▼ buttons).
2. **Press the SURF** button on the remote. (Some channel numbers may already appear within the Surf channel list.)
3. **Press the center Menu** button to "ADD" the selected channel to the Surf list.

   Select the next desired channel and repeat steps 2 and 3. Continue until all desired channels are on the Surf list.
4. **Press the SURF** button on the remote to quickly review current action on channels contained within the Surf list.

STOP



Note: To Delete a channel from the Surf list just press the SURF button to select the desired channel. Then press the Menu button and the channel will be immediately dropped from the on-screen Surf list.

SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES

Your remote control is set to work your TV and many infrared remote (IR) control VCRs, Cable TV Converter Boxes, DVD players, Home Satellite receivers, etc. However, an easy one-time step may be necessary before the remote will work with your accessory device.

To begin, try this initial check to see if going on to the following section is necessary.

BEGIN

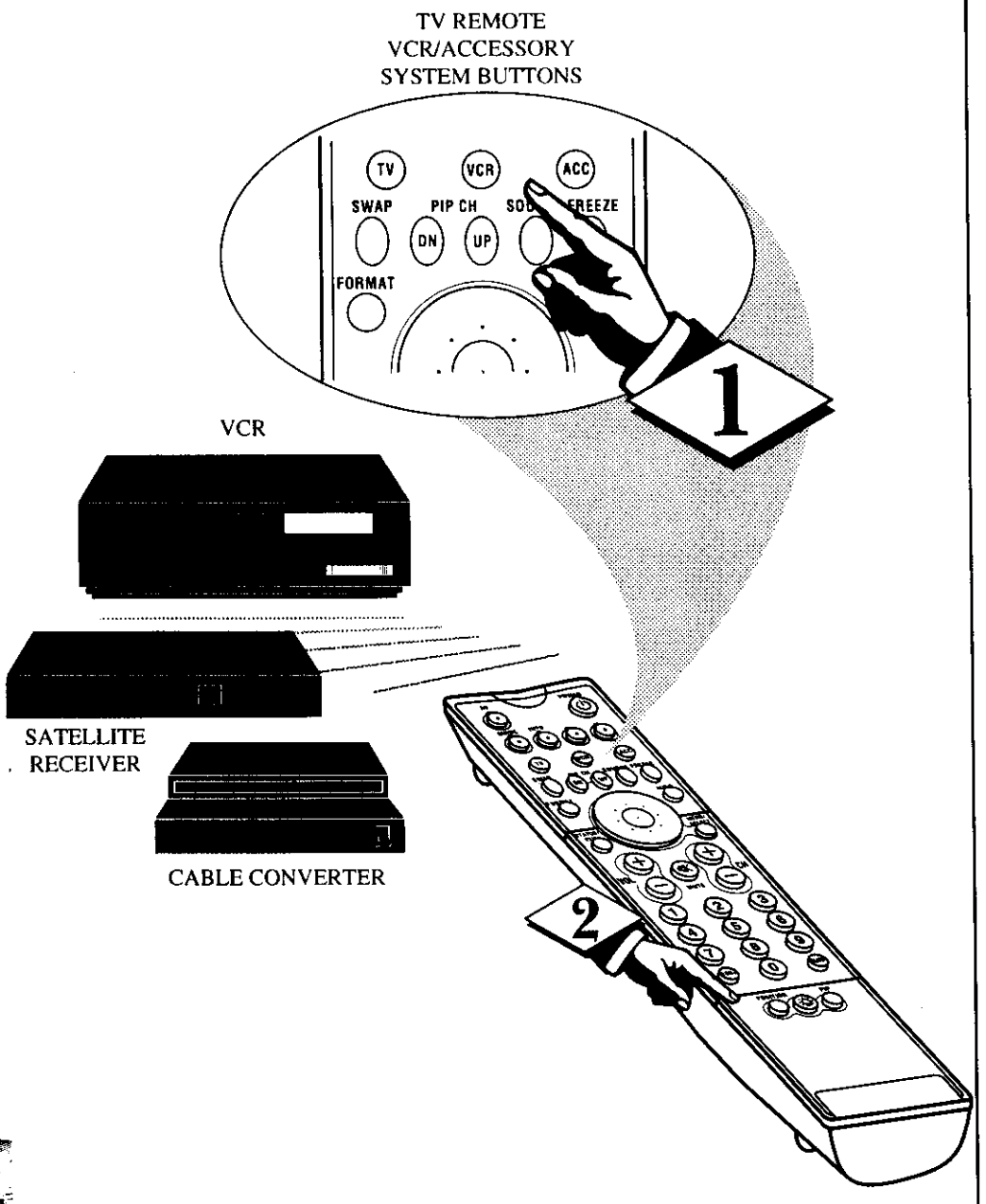
1. **Press the VCR or ACC(essory) System button** on the TV remote for the desired accessory device category.

   Note: The ACC(essory) system button contains product codes for Cable TV Converters, DVD players, and Satellite receivers.

2. **Point the TV remote** toward the desired accessory device and press the POWER button.

3. **Does the remote turn the accessory device ON?**
   IF YES, STOP and try other function buttons on the TV remote. If they also work the accessory device, then the remote is ready and no further steps are needed.

   If NO, continue...



1. First look up a **THREE-DIGIT remote code number** for your brand of Accessory Device before going through the simple Direct Access Method steps shown on the following page.

Find your Three Digit Code Number on pages 45-46.

SMART HELP

Remember, if more than one number is listed, you may have to try more than the first three-digit code given in order to locate your device's correct code.

SETTING THE TV REMOTE TO WORK ACCESSORY DEVICES

DIRECT ACCESS METHOD

Now that you have looked up the three-digit Remote Code Number for your brand of accessory device (see page 45-46), you are ready to follow the simple steps shown below.

Please read through all the steps before beginning.

BEGIN

1. **Press and release the correct VCR or ACC(essory) System** button.
2. **Press and release the center Menu** button.
3. Within **thirty seconds** after releasing the center Menu button, **ENTER THE THREE DIGIT CODE NUMBER** for the desired device. The remote is now ready to send commands to the accessory.
4. **Point the remote** at the accessory device. Press the POWER button on the remote to turn the device ON.

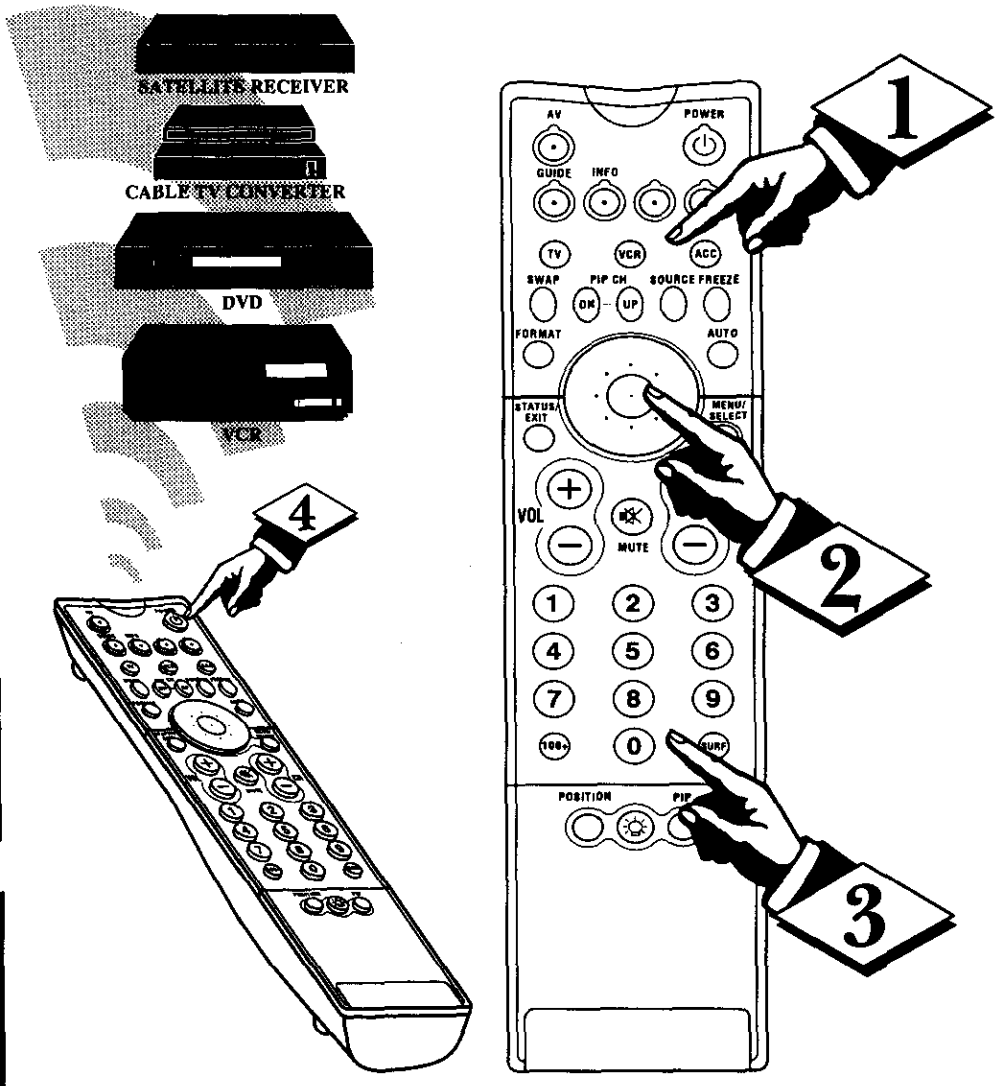
STOP

SMART HELP

Remember, if this does not work the first time, repeat steps using the same remote code number.

If after a second try the remote does not operate your accessory device, and there are more code numbers listed for your brand, use the next listed code number.

If after repeated attempts the code number method does not work your accessory device, try the "SEARCH METHOD" shown on the following page.



Note: For TV remote's equipped with a backlight option, the unit may "blink" or flash as the three-digit Direct Access code numbers are entered on the keypad. (Two blinks indicate a valid code number entry has been accepted; one long blink indicates an invalid code number or the thirty second time interval for entering code numbers has expired.)

Setting the Remote To Work Other Devices - Search

SEARCH METHOD

Your TV remote can be set to work various accessory devices (VCRs, Cable Converters, Satellite Receivers) by what is called the SEARCH method.
***Note: The Search Method only works with devices equipped with Channel Display** Indicators or capability. If the "Direct Access" code number method (shown in the previous section) did not set your remote to work your accessory device, then follow the easy steps listed below.*

BEGIN

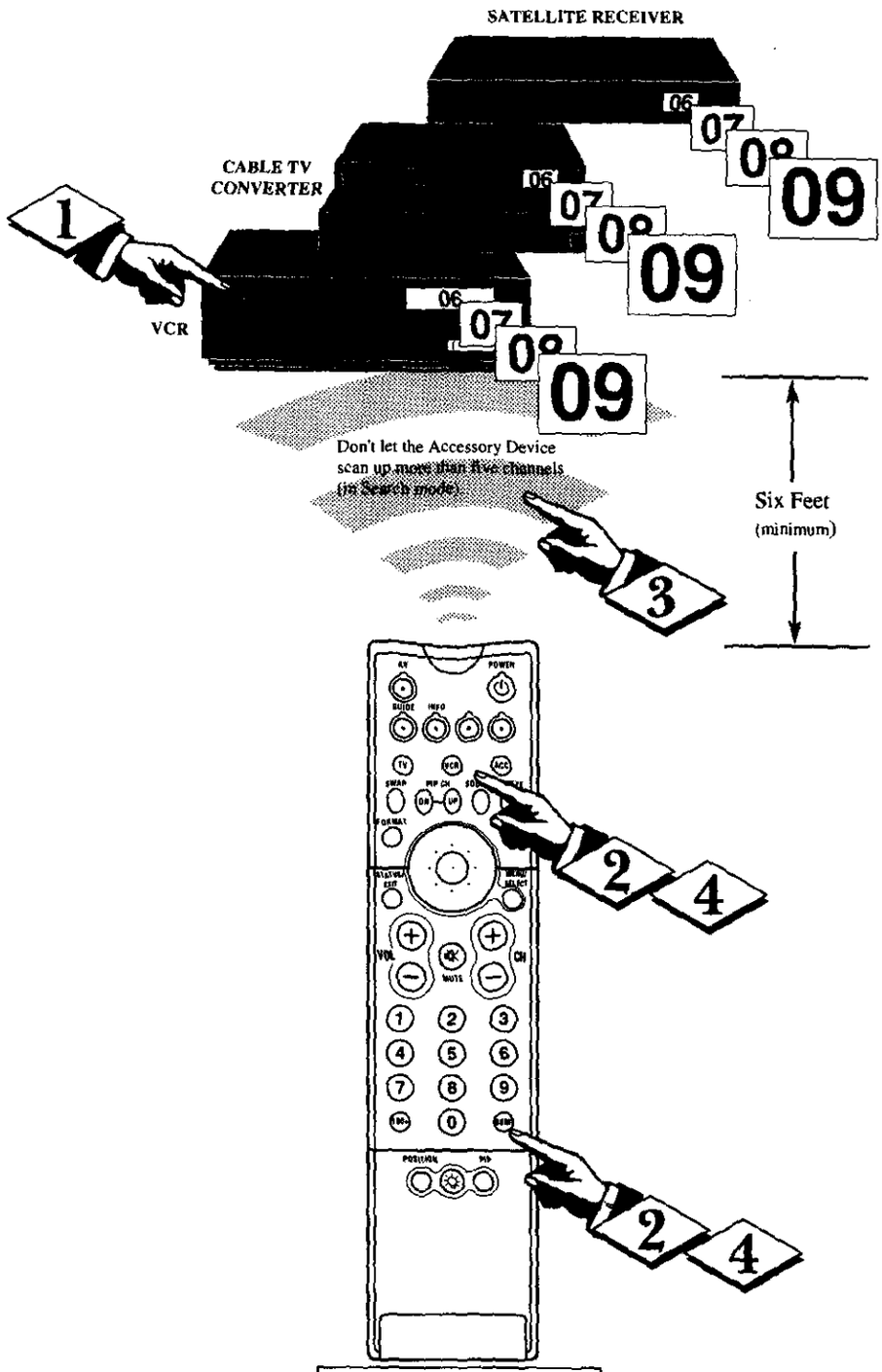
1. **Turn ON the desired device. Press the correct VCR or ACC** system button on the remote.
2. Stand at least six feet away from the front of the accessory device. **Point the remote** toward the unit. **HOLD DOWN** the **SURF** and **the desired System (VCR or ACC)** buttons at the same time. KEEP HOLDING BUTTONS DOWN.
3. **Watch the Channel Indicator** on the unit. Channel Numbers will SCAN UP when the unit has been identified. This may take up to two minutes.
4. **Release the SURF and System (VCR or ACC) buttons** as soon as channel numbers start to scan up. The code has been identified and the remote is ready to operate with the accessory device.

STOP

SMART HELP

Remember, a minute or two can seem very long, but the code should be located within two minutes.
Don't let the accessory device scan up more than five channels. The remote may pass up the right code and another two minute search cycle will have to be repeated.

If no channel change happens within two minutes, repeat steps 1-4. Should a channel change still not occur, the remote will not work with the desired unit.



Note: For TV remote's equipped with a backlight option, the unit may "blink" or flash as the remote moves through its product code list. Once a product code has been identified and the buttons on the remote are released, the unit will blink twice.

Remote Control Direct Entry Codes for Accessory Devices

VCR BRAND	REMOTE CODE NO.
Admiral	075, 236
Adventura	027
Aiko	305
Aiwa	334, 495, 027, 064
Akai	133, 080, 076, 088, 183, 269, 068
American Action	305
American High	062
Asha	267
Audiovox	064
Beaumark	267
Bell & Howell	131
Broksonic	211, 148, 388, 029, 236, 238, 322, 506
CCE	099, 305
Calix	064
Canon	194, 062, 129
Capehart	047
Carver	108
Cineral	305
Citizen	305, 064
Colt	099
Craig	064, 074, 099, 267, 298
Curtis Mathes	062, 068, 087, 189
Cybernex	078, 267
Daewoo	305, 588, 047, 072
Daytron	047
Denon	069
Dynatech	027
Electrohome	064
Electrophonic	064
Emerex	059
Emerson	211, 029, 148, 236, 063, 238, 305, 321, 115, 235, 506, 088, 239, 588, 095, 322, 388, 537, 027, 064, 070
Fisher	074, 131, 081, 093
Fuji	060, 062
Funai	027
GE	062, 087, 092, 229, 075, 267
Garrard	027
Go Video	306, 259, 459, 553
GoldStar	064, 045, 065, 498, 507
Gradiente	035, 027, 435
Grundig	222
HI-Q	074
Harley Davidson	027
Harman/Kardon	108, 065, 102
Harwood	095, 099
Headquarter	073
Hitachi	069, 193, 132, 092, 027, 068, 109
Huges Network Systems	069
Jensen	068
JVC	094, 035, 233, 234, 068, 411
KEC	064, 305
KLH	099
Kenwood	411, 068, 094, 065
Kodak	062, 064
LXI	064
Lloyd's	027, 235
Logik	099
MEI	062
MGA	070, 088, 267
MGN Technology	267
MTC	027, 267
Magnasonic	305
Magnavox	062, 108, 137, 130, 027, 066, 176
Magnin	267
Marantz	108, 062
Marta	064
Matsushita	062, 481, 189
Memorex	131, 074, 027, 064, 062, 075, 236, 267, 334, 481, 073, 066,
Minolta	132, 069
Mitsubishi	070, 088, 200, 241, 102, 269, 094, 470, 075
Motorola	062, 075
Multitech	027, 099
NAD	085
NEC	065, 067, 068, 077, 094, 109, 131
Nikko	064
Nikon	061, 280
Noblex	267
Olympus	062, 253
Optimus	085, 829, 064, 075, 459, 131, 189, 481
Optonica	089
Orion	236, 506, 322, 029, 211
Panasonic	062, 253, 104, 189, 405, 129, 252, 254, 273, 481
Penney	062, 267, 064, 065, 069, 067, 081
Pentax	092, 069, 132
Philco	062, 506, 236
Philips	108, 062, 089, 137
Pilot	064
Pioneer	085, 195, 094
Portland	047
Profitronic	267
Proscan	087, 229
Protec	099
Pulsar	066, 078
Quarter	073
Quartz	073
Quasar	062, 189, 104, 481
RCA	087, 176, 229, 069, 132, 092, 104, 133, 304, 062, 075, 267
Radio Shack	027
Radix	064
Randex	064
Realistic	074, 027, 131, 075, 064, 062, 089, 073, 093
Ricoh	061, 280
Runco	066
STS	069
Salora	102
Samsung	267, 072, 080, 078
Sanky	066, 075
Sansui	506, 068, 109, 236, 298, 027, 094
Sanyo	073, 074, 131, 267
Scott	211, 148, 238, 072, 237, 239, 070
Sears	069, 132, 081, 073, 064, 074, 131, 027, 062, 093
Semp	072
Sharp	075, 089
Shintom	099
Shogun	078, 267
Singer	099
Sony	060, 061, 059, 280, 038, 062, 027
Sunpak	280
Sylvania	062, 108, 027, 130, 137, 070
Symphonic	027
TMK	063, 235, 267
Tatung	068
Teac	027, 068
Technics	062, 189, 273
Teknika	027, 062, 079, 064
Thomas	027
Toshiba	072, 239, 237, 093, 393, 070
Totevision	064, 267
Unitech	267
Vector	072
Vector Research	065, 067
Video Concepts	067, 088, 248, 072
Videosonic	267
Wards	062, 075, 089, 027, 087, 074, 267, 239, 069, 099, 176, 108
White Westinghouse	236, 305
XR-1000	099, 027, 062
Yamaha	065
Zenith	066, 060, 061, 027, 236, 506

CABLE CONVERTER	REMOTE CODE NO.
ABC	030, 035, 038, 040, 028, 034, 041, 044, 060
Allegro	180, 342
Antronix	049, 234
Archer	049, 066, 180, 234, 824
BBT	294
Belcor	083
Bell & Howell	041
Cable Star	083
Cabletenna	049
Cableview	049
Century	180
Citizen	180, 342
Colour Voice	052, 058
Comband	259
Comtronics	067, 087
Contec	046
Digi	664
Eastern	029
Emerson	824
Everquest	042, 067
Focus	427
GC Electronics	083, 234
Garrard	180
GE	259
GC Electronics	083, 234
Garrard	180
GE	259
Gemini	042, 097, 269, 824
General Instrument	303, 503, 038, 837
GoldStar	067, 171
Goodmind	824
Hamlin	047, 036, 286, 061, 300
Hitachi	038

Continued on Next Page

Remote Control Direct Entry Codes for Accessory Devices

CABLE CONVERTER	REMOTE CODE NO.
Hytex	034
Jasco	042, 180, 342
Jerrold	030, 039, 303, 038, 041, 042, 051, 503, 837
Linsay	467
Macom	060
Magnavox	054
Memorex	027
Movie Time	090, 183
NSC	183, 090, 097
Novaplex	645
Oak	046, 034
Optimus	048
Panasonic	048, 134, 027
Panther	664
Paragon	027
Philips	052, 058, 054, 180, 269, 317
Pioneer	171, 050, 560
Popular Mechanics	427
Prelude	797
Pulsar	027
Quasar	027
RCA	048
Radio Shack	824, 042, 342, 847
Realistic	234
Recoton	427
Regal	286, 047, 300
Regency	029
Rembrandt	038, 097
Runco	027
SL Marx	067
Samsung	067, 171
Scientific Atlanta	033, 035, 044, 504
Seam	537
Signal	042, 067
Signature	038
Sprucer	048
Starcom	030, 042
Stargate	067, 042, 824, 797
Starquest	042
Starsight	569, 449
Sylvania	028
TFC	337
TV86	090
Tandy	285
TeleCaption	248
Teleview	067
Texscan	028
Timeless	445
Tocom	039, 040
Toshiba	027
Tusa	042
Unika	234, 180, 049
United Artists	034
Universal	234, 049, 083, 218, 180, 066
Viewstar	285, 054, 090, 087
Zenith	027, 552, 081
Zentek	427

SATELLITE RECEIVER	REMOTE CODE NO.
AlphaStar	799
Amplica	099
Amway	102, 070
Arunta	548
Astro Industries	122
BMC	114
BSR	122
Cable Innovations	581
Capetronic	122
Century	565
Channel Maste	045, 239
Chaparral	080, 236, 243
Citoh	191
Conifer	031
Curtis Mathes	088, 099
DX Antenna	068
Drake	091, 272, 045, 176
Echostar	307, 802, 175, 186, 296
Expressvu	802
General Instrument	388, 896, 654, 574, 581
Gould	082
HTS	802
Hitachi	846
HNS	644
Homecable	265
Hughes Network Systems	776
Hytek	122
Intersat	070
IQ	237
IQ Prism	237
JVC	802
Janeil	179
Jerrold	388, 654
Legend	296
Macom	088, 045
Magnavox	749, 751
Memorex	296, 751
Next Level	896
Norsat	031
Panasonic	179, 728
Philips	227, 749, 751
Pico	102
Primestar	654, 388
RCA	593, 170, 882
Radio Shack	581, 896
Ramsey	102
Realistic	079, 078
STS	237, 068
Sony	666
Star Choice	896
Star Trak	207, 448, 574
Strong	448
Town & Country	574
Toshiba	109, 817, 088
Uniden	265, 397, 079, 101, 751 103, 581, 323, 749
Zenith	091, 088, 883

DVD BRAND	REMOTE CODE NO.
Denon	859
GE	862
Harman/Kardon	871
JVC	868
Kenwood	865
Magnavox	860
Marantz	866
Mitsubishi	861
Onkyo	860
Optimus	869
Panasonic	859
Philips	866, 860
Pioneer	863, 869
Proscan	862
RCA	862
Samsung	870
Sony	864
Technics	859
Theta Digital	869
Toshiba	860
Yamaha	867, 859
Zenith	872, 860

LASER DISC	REMOTE CODE NO.
ADS	880
Aiwa	855
Carver	853, 850, 858
Denon	851, 849, 875
Disco Vision	848
Funai	855
Harman/Kardon	853
Hitachi	848
Kenwood	877
Magnavox	853, 857, 875
Marantz	853, 850
Mitsubishi	849
NAD	849
NEC	879
Nikkodo	884
Optimus	849
Panasonic	856
Philips	853, 850
Pioneer	849, 848
Quasar	856
RCA	881, 874
Realistic	855
Samsung	858
Sega	848
Sharp	873
Sony	854, 852, 878
Technics	856
Theta Digital	853
Victor	876
Yamaha	857

USING THE REMOTE'S VCR BUTTONS

When using the TV remote with a VCR, first make certain it is set to control your VCR (by the REMOTE CODE or SEARCH method - see earlier sections).

BEGIN

1. **Press the VCR System button** on the remote.

2. **Point the top of the remote** toward the front of the VCR (remote sensor window) when pressing buttons.

STOP

TV-VCR (AV) Button

Press to the VCR position ("VCR" indicator on the VCR will light) to view the playback of a tape. Press again to place in the TV position ("VCR" indicator on the VCR will go OFF) to view one program while recording another program.
When used with the television the AV button works as a source button. Each press cycles the TV between the AUX(iliary) Input modes, ANT A/B inputs, and the the last view channel. It is a quick one-button way to select these channels and modes (without directly entering the TV's Menu system.)

Status/Exit Button

Press to clear the screen of menu controls or display a feature operation status screen.

Record/VCR Plus+ Button

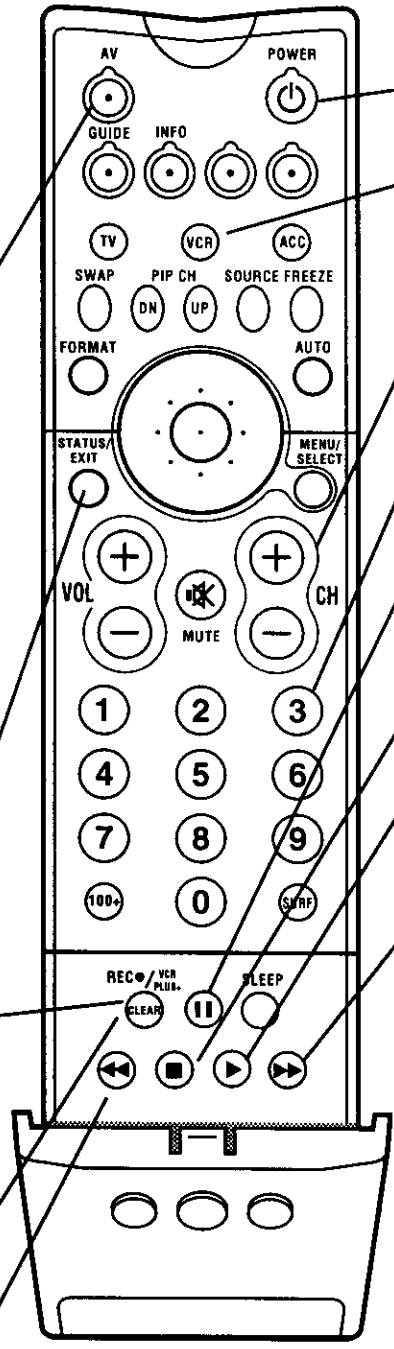
Press the RECORD button to start a recording (with some VCR models you may also need to press the PLAY button on the remote to begin recording). Also use this button to set timer recordings with the VCR Plus+ programming system.

Clear Button

Press to erase incorrect entries or data when programming VCR functions.

Rewind Button

Press to rewind tapes. For some VCRs you may need to press STOP button first then REWIND. In playback mode, hold button down to view picture moving rapidly in reverse.



Open the remote control VCR button compartment with the pull tabs located on both sides of the hinged door or lid.

Power Button

Press to turn the VCR ON and OFF.

VCR System Button

Press to send remote commands to the VCR.

Channel Scan Buttons

Press to scan up or down through VCR channel numbers.

Number Buttons

Press buttons for direct VCR channel selections.

Pause Button

Press to temporarily stop the tape during a playback, or recording. Press again to release Pause.

Stop Button

Press to stop the tape.

Play Button

Press to playback a tape. Hold down after pressing the RECORD button to start a recording.

Fast Forward Button

Press to rapidly advance the tape. For some VCRs you may need to press STOP first then FF. In Playback mode hold button down to view the picture moving rapidly in the forward direction.

SMART HELP

Remember, the VCR buttons on the remote will not operate your VCR if those features are not already found on your VCR remote control.

Note: All VCR functions (particularly Search, Rewind, Fast Forward, etc.) will operate the same as with the original VCR remote control provided with the VCR.

How to Use the Picture-In-Picture (PIP) Feature

Picture-in-Picture (PIP) is the showing of two pictures on the TV screen at the same time. (One main screen picture and one small inset picture - or PIP). For your ease and convenience this TV has two separate inputs (ANTenna A and ANTenna B) for your home's Antenna and/or Cable TV system signal.

The ANT A input is primarily for the TV's main screen picture. The ANT B input is provided as a second, dedicated source option for the TV's PIP "window" *and its feature operations. The signal connected to the ANT B input can be either a Split Signal Input (as described in the section on this page), or another type of external signal source (such as a satellite dish system, additional home antenna, video accessory, etc.).*

See the following steps on how channels connected to the ANT(enna) B Input can be shown and used within the PIP window:

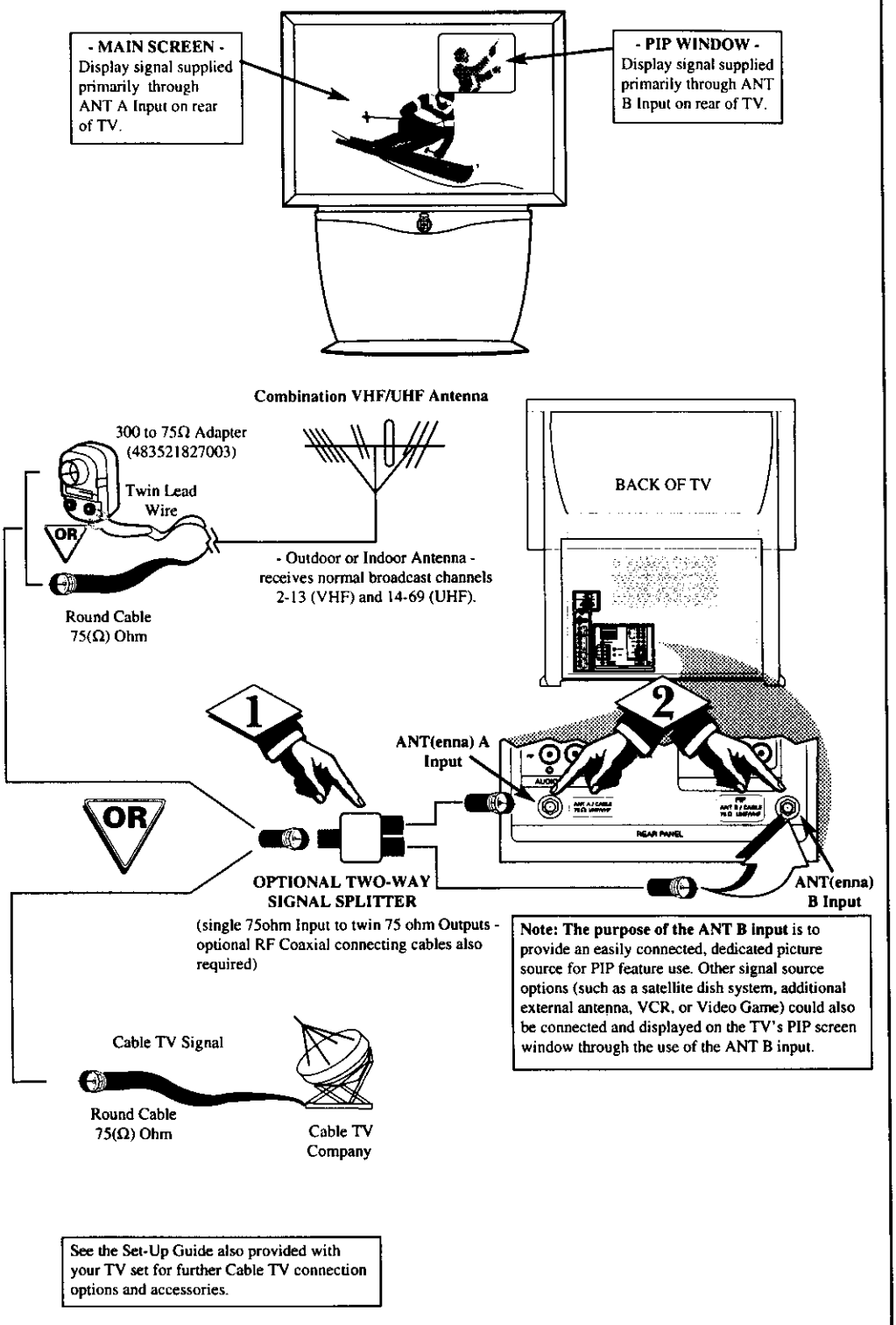
BEGIN

1. **Connect your Antenna or Cable TV** signal to the single 75 ohm INPUT plug on a two-way Signal Splitter (not supplied).

   Connect two lengths of RF Coaxial Cable (F-type connectors on both ends) to the two OUTPUT plugs on the two-way Signal Splitter.

2. **Connect the twin OUTPUT plugs** on the Signal Splitter to the ANT A and ANT B Inputs on the rear of the TV.

continue to next page


- MAIN SCREEN -
Display signal supplied primarily through ANT A Input on rear of TV.
- PIP WINDOW -
Display signal supplied primarily through ANT B Input on rear of TV.
Combination VHF/UHF Antenna
300 to 75Ω Adapter (483521827003)
Twin Lead Wire
OR
Round Cable 75(Ω) Ohm
- Outdoor or Indoor Antenna - receives normal broadcast channels 2-13 (VHF) and 14-69 (UHF).
BACK OF TV
1
2
ANT(enna) A Input
OR
OPTIONAL TWO-WAY SIGNAL SPLITTER
(single 75ohm Input to twin 75 ohm Outputs - optional RF Coaxial connecting cables also required)
ANT(enna) B Input
Note: The purpose of the ANT B input is to provide an easily connected, dedicated picture source for PIP feature use. Other signal source options (such as a satellite dish system, additional external antenna, VCR, or Video Game) could also be connected and displayed on the TV's PIP screen window through the use of the ANT B input.
Cable TV Signal
Round Cable 75(Ω) Ohm
Cable TV Company
See the Set-Up Guide also provided with your TV set for further Cable TV connection options and accessories.

Smart Help

For other possible PIP connections see page 53 for the "More PIP Connections" section.

If you need any accessories or parts to complete the described PIP connections, contact your dealer, or our Parts Information Center at (1-800-851-8885) for details.

Now that you have completed the required connections on the previous page you are ready to follow the simple steps shown below.

3 **Turn the TV ON.**

Place the TV's PIP SOURCE SELECT control to "ANT B"-

- Press the PIP Source button on the remote to select "ANT B" as the PIP source, (or use the FEATURES MENU 4 of 5 control screen to select the PIP Source Select item as ANT B.

Also be sure the TV's Main screen PICTURE SOURCE SELECT control is "ANT A"-

- Use the remote's A/V button to set the TV to ANT A mode.

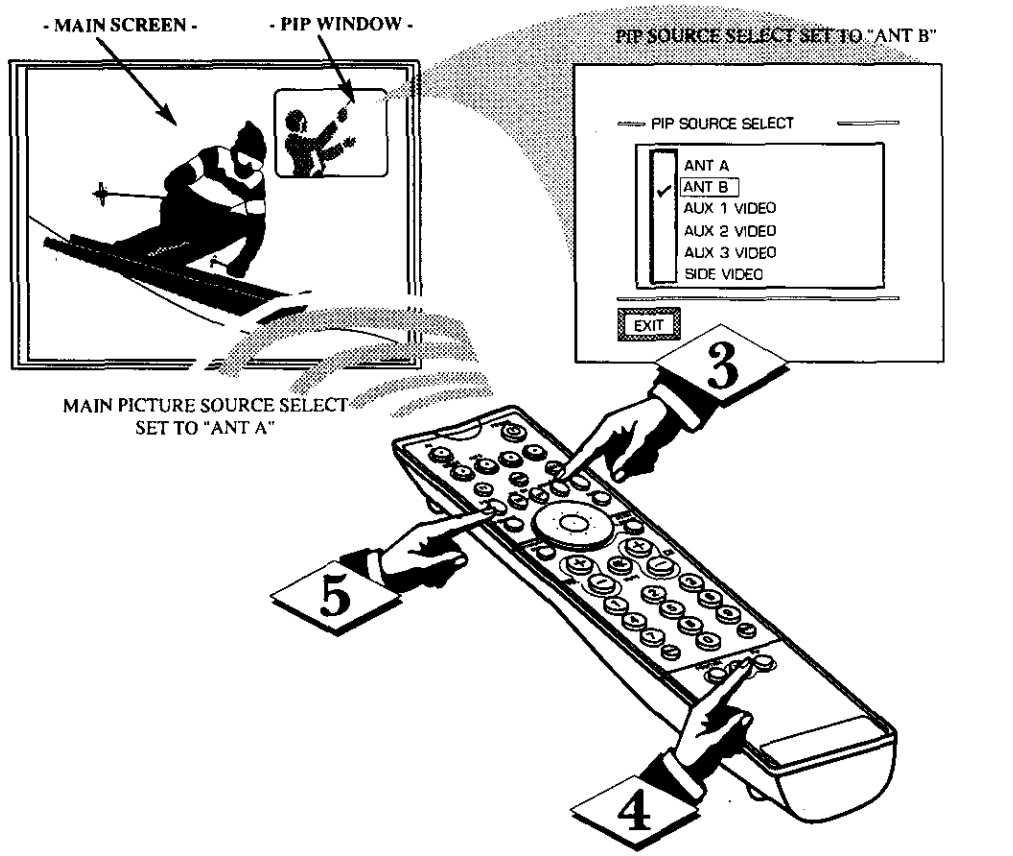
Press the STATUS button to clear the screen when the above Menu items have been set.

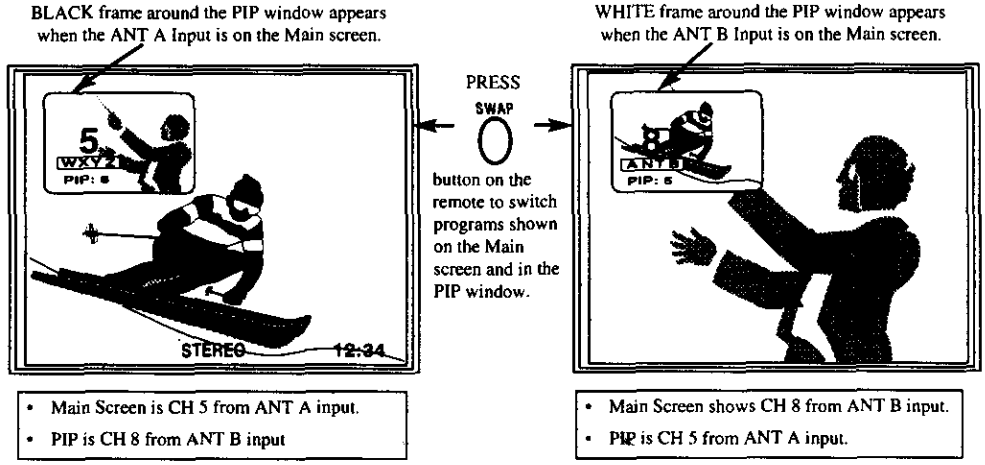
4 **Press the PIP ON/OFF button** on the remote.

The PIP window should show in one of the corners of the TV screen.

5 **Press the SWAP** buttons on the remote to move the ANT B and ANT A Input pictures between the PIP window and Main screen.

Use the PIP CH(annel) Up and Down buttons to select desired programs for viewing in the PIP window. Program Sound occurs with the channels displayed on the Main screen.




BLACK frame around the PIP window appears when the ANT A Input is on the Main screen.
WHITE frame around the PIP window appears when the ANT B Input is on the Main screen.
PRESS
SWAP
button on the remote to switch programs shown on the Main screen and in the PIP window.
5
WXYZ
PIP: 8
ANT B
PIP: 5
STEREO
12:34

- Main Screen is CH 5 from ANT A input.
- PIP is CH 8 from ANT B input

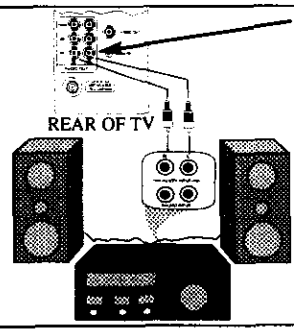
- Main Screen shows CH 8 from ANT B input.
- PIP is CH 5 from ANT A input.

SMART HELP

Remember, if you see the same picture on the main screen and in the PIP window, check to be sure the TV's PIP Source Select and Main screen Picture Source select are set for ANT B and ANT A respectively.

See the following page on how to operate other PIP features with the TV's remote control.

NOTE: Sound for TV programs displayed in the PIP window can also be heard through the use of PIP AUDIO OUT jacks on the rear of the TV. Just connect the TV's Left/Right PIP AUDIO OUTPUTs to the correct AUX(iliary) Inputs on an external stereo sound system (through which the PIP audio will be played).



PIP AUDIO OUTPUT will be monaural (mono) when both ANT A and ANT B are being used for normal PIP operation. See page 30 for details on other stereo sound uses for the PIP Audio Output jacks.

USING PIP WITH THE REMOTE CONTROL

By using the PIP buttons on the remote the PIP picture can be moved and swapped with the main screen. The main screen picture can also be frozen in the PIP window.

BEGIN

1. **Press the PIP ON/OFF button** to show the PIP picture.

   PIP appears in a corner of TV screen. Press PIP ON/OFF again to remove PIP from the main screen.

2. **Press the PIP POSITION button** to move the PIP picture (from corner-to-corner on the TV screen.)

   This feature allows you to move PIP and avoid blocking off any main screen action.

3. With PIP on the TV screen, **press the SWAP button** to swap the main screen picture with the PIP picture. See "Smart Help" note on this page.

4. **Press FREEZE** to hold the current MAIN screen picture in the PIP window (Main picture is still active).

   If PIP is currently OFF, the PIP window will automatically appear.

   Press FRZ repeatedly to update the frozen PIP with current pictures from the Main screen.

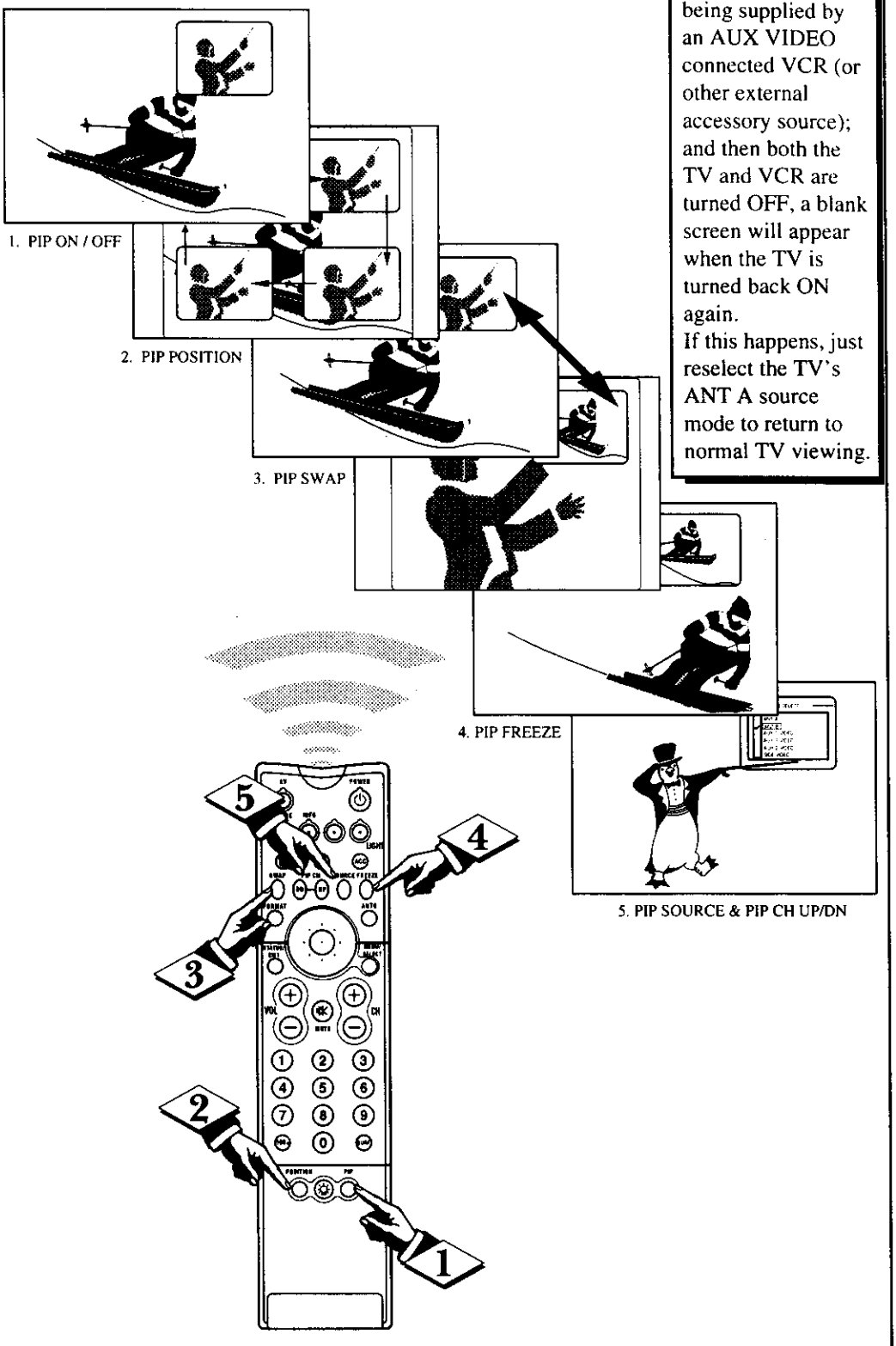
   You cannot reposition a frozen PIP picture.

   Press the PIP ON/OFF button to drop the frozen PIP picture from the screen.

5. **Press the PIP SOURCE** button to change the signal input source (ANT B, etc.) for the PIP window shown on the TV screen.

   Press the PIP CH(annel) Up and Down (DN) buttons to select channels shown within the PIP window (when an antenna/cable signal source is connected for use with PIP).

STOP



SMART HELP

Remember, if the TV's Main screen picture is being supplied by an AUX VIDEO connected VCR (or other external accessory source); and then both the TV and VCR are turned OFF, a blank screen will appear when the TV is turned back ON again.
If this happens, just reselect the TV's ANT A source mode to return to normal TV viewing.

SELECTING THE PICTURE SOURCE FOR PIP

PIP SOURCE

The picture for the PIP window can come through either the ANT(enna) A / B Inputs or the AUX Video Inputs (on the rear and side of the TV). PIP Picture Source simply tells the TV which one of these sources it is to show in the PIP window.

BEGIN

1. **Select PIP SOURCE** control.

With FEATURES MENU (4 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

Note: The remote control's PIP SOURCE button can also be used to quickly select picture source inputs on the rear of the TV for the PIP window.

2. **Press the MENU ring and center MENU** buttons to highlight and select the desired (✓) PIP Picture Source.

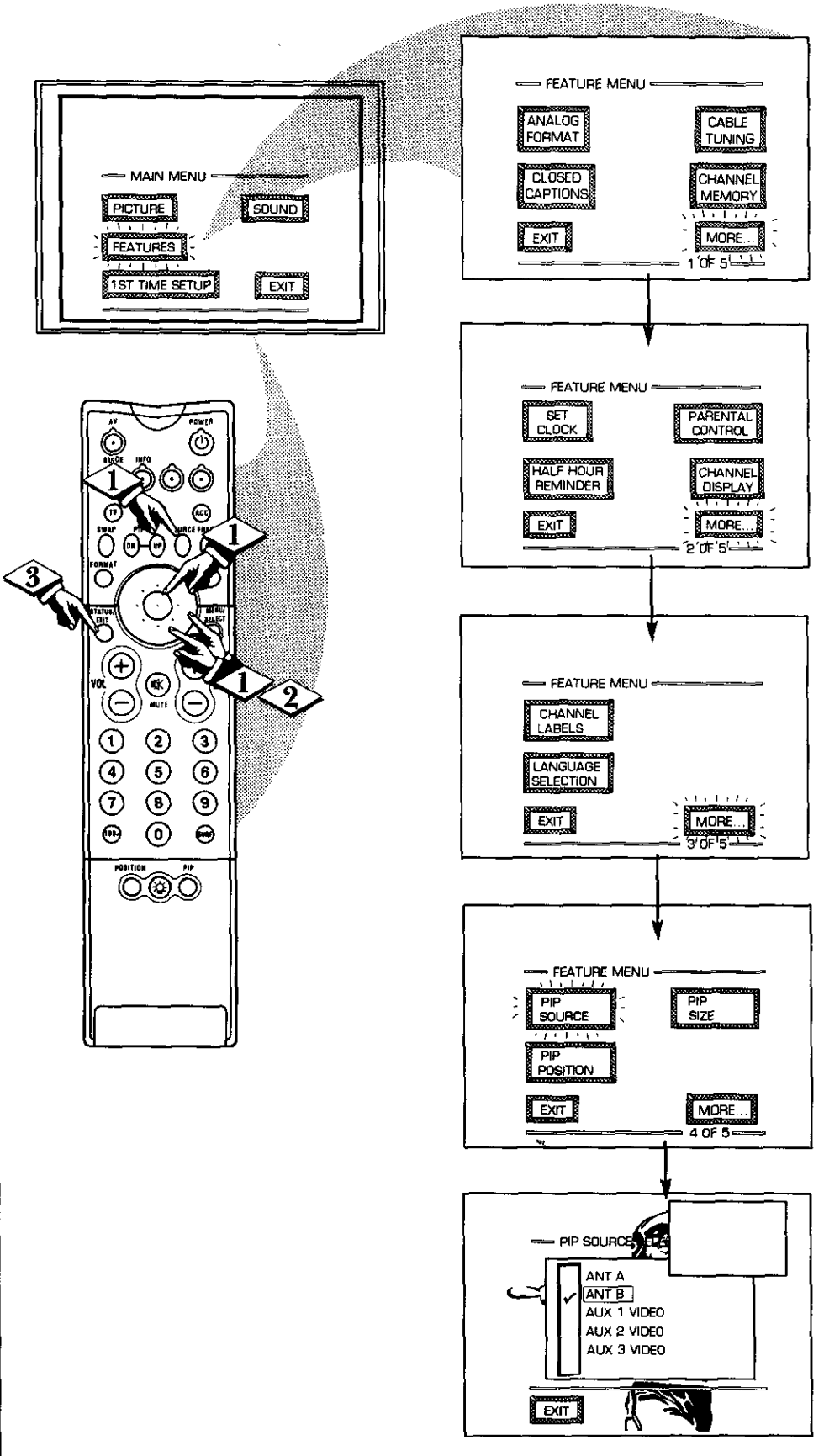
ANT A or B- for a picture signal coming from either the ANT(enna) A or B Input plug on the TV.

AUX 1 (or 2) VIDEO - for a picture signal coming from the AUX 1 (or 2) VIDEO IN jack on the rear of the TV.

AUX 3 VIDEO - for a picture signal coming from the SIDE VIDEO Input jack on the right side of the TV cabinet.

3. **Press the STATUS** button to clear the screen.

STOP



SMART HELP

Remember, the PIP window will be blank unless a signal is connected to the selected PIP Picture Source (ANT B, AUX 1 VIDEO, AUX 2 VIDEO, etc.) on the set.

If you see the same picture on the main screen and in the PIP window, you may have the Main Screen and PIP window set to the same video input source.

ADJUSTING PICTURE-IN-PICTURE COLOR AND TINT

PIP COLOR / PIP TINT

The Picture-In-Picture (PIP) Color and Tint controls are used to make fine tune adjustments to the color settings for PIP (when it is shown on the TV screen).

BEGIN

1. **Select PIP COLOR (or PIP TINT)** control.

   With FEATURES MENU (5 of 5) on screen, move the RED highlight with the outer MENU ring buttons. Then press the center MENU button to select the feature.

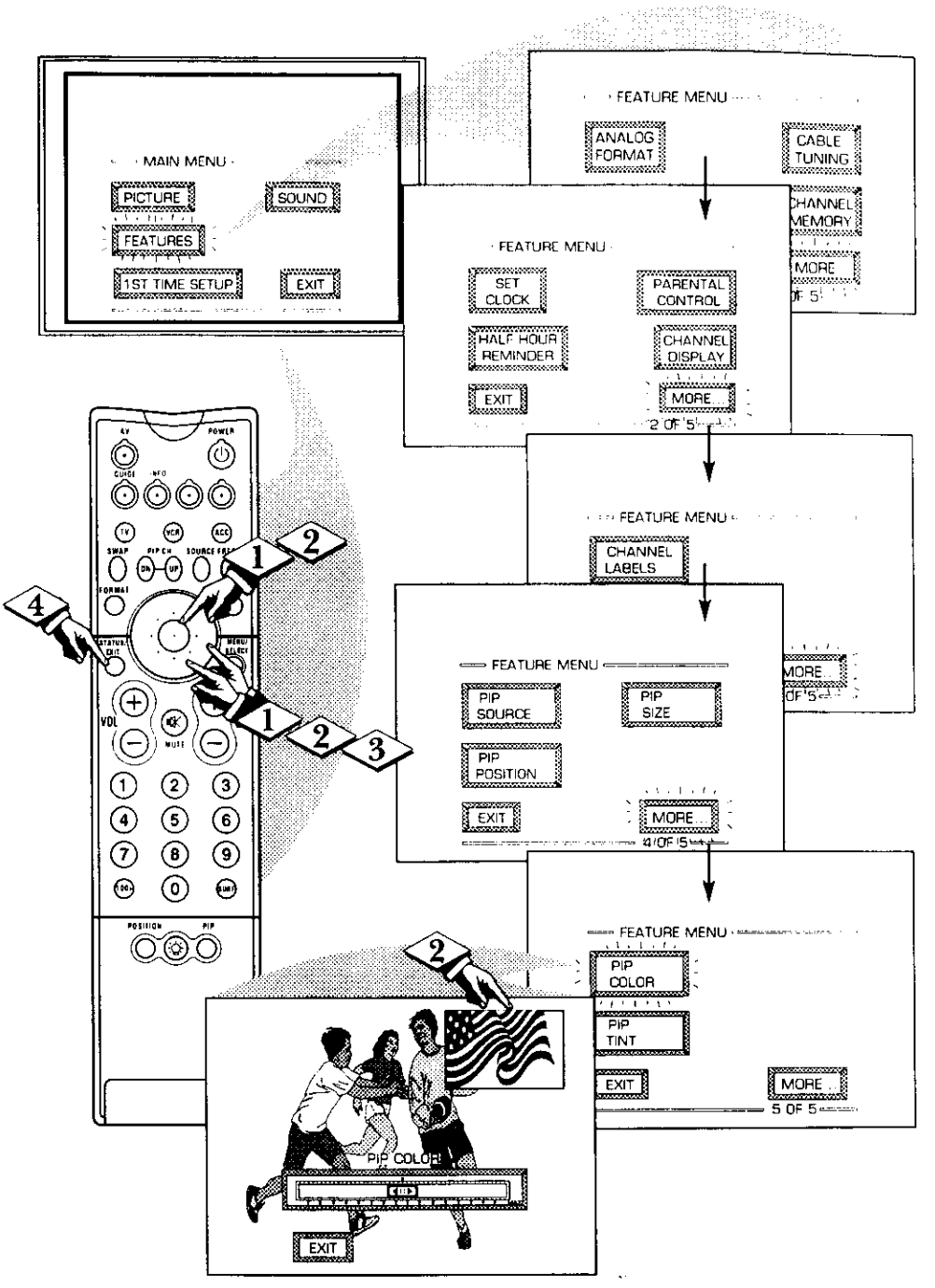
2. **Press the outer MENU ring** buttons to move the RED highlight. Press the MENU button to turn (✓) the PIP COLOR or TINT control ON.

   The PIP automatically comes on to show the PIP window on the TV screen.

3. **Press the outer Menu ring (Left and Right)** buttons to adjust the PIP for Color (or Tint) levels you prefer.

4. **Press the STATUS** button to clear the screen.

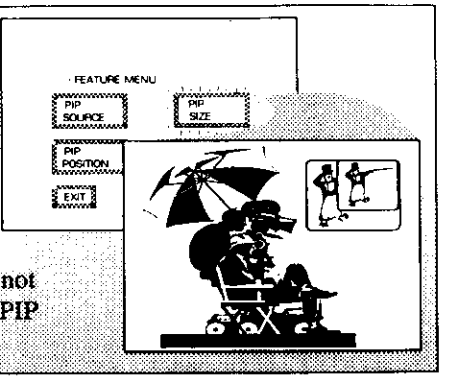
STOP



SMART HELP

Remember. Although there are separate COLOR and TINT controls for PIP, the adjustment levels for these controls depend on the TV's main picture. For example: If the main screen is showing a black and white picture, PIP would also be in black and white (even though its source is in color).

Note: The PIP SIZE Menu option can be used to change the size of the PIP window shown on the TV screen. Compare the Large and Small size displays to see which size you prefer for onscreen PIP use. (You cannot change the size of a frozen PIP picture.)



More PIP Connections

The following example is for an alternative PIP connection hookup using an external Cable Converter Box and a VCR (as the picture source for the PIP window).

BEGIN

1. **First use an optional signal splitter and** connect the original cable TV signal to both the CABLE IN on the Cable Converter and the ANTENNA A plug on the rear of the TV.

2. **Connect the CABLE OUT** on the Converter to the ANT. IN on the VCR.

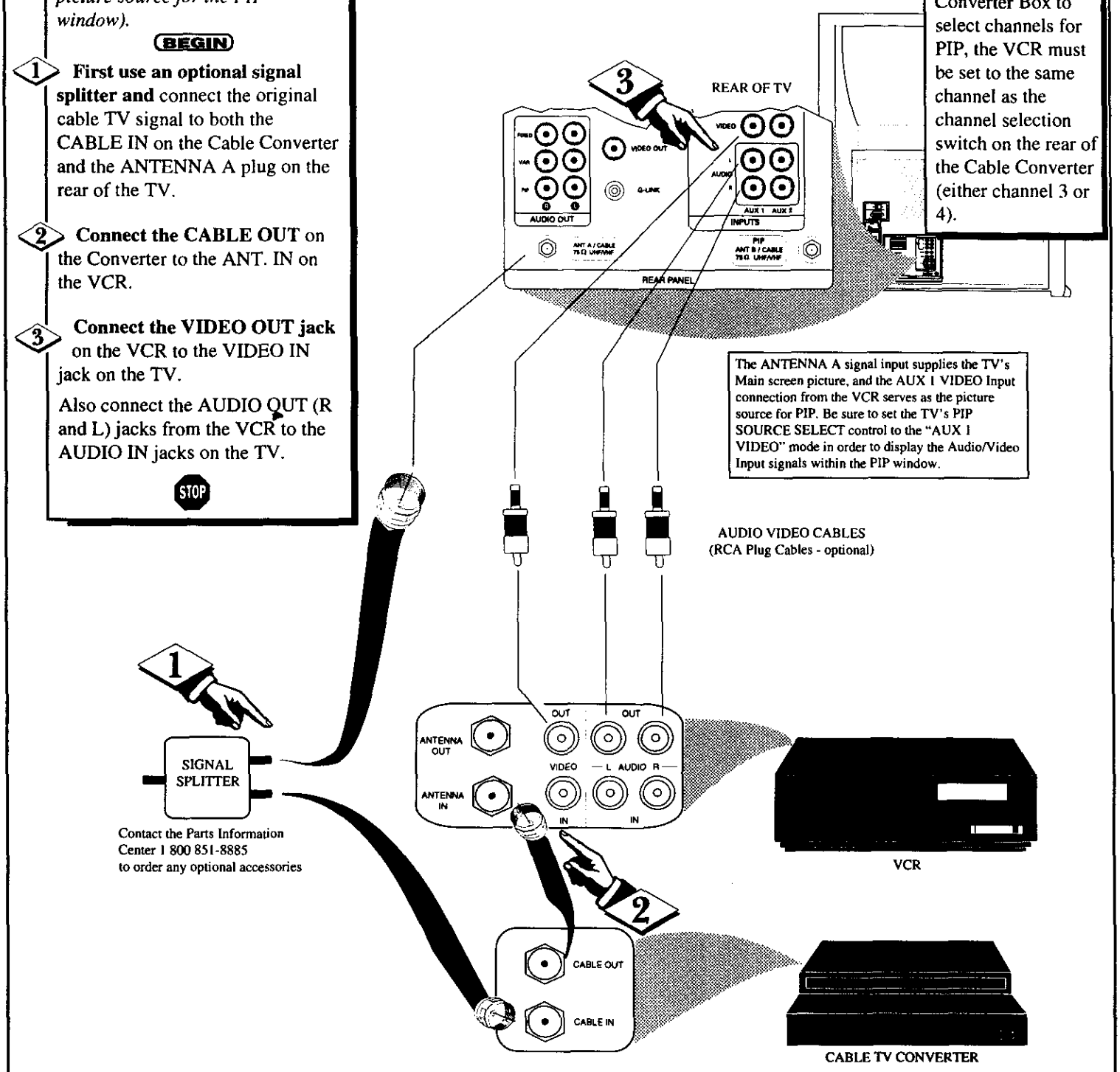
3. **Connect the VIDEO OUT jack** on the VCR to the VIDEO IN jack on the TV.

   Also connect the AUDIO OUT (R and L) jacks from the VCR to the AUDIO IN jacks on the TV.

STOP

Smart Help

Remember to use the Cable TV Converter Box to select channels for PIP, the VCR must be set to the same channel as the channel selection switch on the rear of the Cable Converter (either channel 3 or 4).



The ANTENNA A signal input supplies the TV's Main screen picture, and the AUX 1 VIDEO Input connection from the VCR serves as the picture source for PIP. Be sure to set the TV's PIP SOURCE SELECT control to the "AUX 1 VIDEO" mode in order to display the Audio/Video Input signals within the PIP window.

AUDIO VIDEO CABLES
(RCA Plug Cables - optional)

Contact the Parts Information Center 1 800 851-8885 to order any optional accessories

Tips If Something Isn't Working

Please make these simple checks before calling for service. These tips can save you time and money since charges for TV installation and adjustment of customer controls are not covered under your warranty.

CAUTION: A video source (such as a video game, Compact Disc Interactive - CDI, or TV information channel) which shows a constant non-moving pattern on the TV screen, can cause picture tube damage. When your TV is continuously used with such a source the pattern of the non-moving portion of the game (CDI, etc.) could leave an image permanently on the picture tube. When not in use, turn the video source OFF. Regularly alternate the use of such video sources with normal TV viewing.

No Power

- Check the TV power cord. Unplug the TV, wait 1 minute, then reinsert plug into outlet and push POWER button again.
- Check to be sure outlet is not on a wall switch.

No Picture

- Check antenna connections on the rear of the TV. Are they properly secured to the antenna plug on the TV?
- Check the CABLE TUNING control for correct position.
- Check Picture Source (A/V Button) for correct position ANT A or B; AUX 1/2/3 VIDEO; AUX 1/2 Y P_B P_R; etc. position without a signal source will result in a blank screen.
- Check the CLOSED CAPTIONS control. Some TEXT modes could block the screen.

No Sound

- Check the VOLUME and MUTE buttons on the TV and remote.
- Check the TV SPEAKER NORMAL/OFF sound control for the correct position.
- If attempting auxiliary equipment hook-ups, check audio jack connections and that the auxiliary equipment is on and in the proper operating modes.
- Check AMP Switch on rear of TV. Place in INT(ernal) position for normal TV sound. EXT(ernal) for optional Dolby ProLogic Surround Sound connections using the TV's speakers as Center channel.

Remote Does Not Work

- Check VCR-ACC-TV "System" buttons on the remote. Press the remote's TV System button to send commands to the TV; VCR System to sent to VCR; etc.
- Check batteries. Replace with AA Heavy Duty (Zinc Chloride) or Alkaline batteries if necessary.
- Clean the remote and the remote sensor window on the TV.

TV Displays Wrong Channel or No Channels Above 13

- Repeat channel selection.
- Add desired channel numbers (ADD/DELETE CHANNELS control) into TV memory.
- Check CABLE TUNING control for correct position.

This TV is equipped with protective circuitry that shuts the TV off in case of moderate power surges. Should this occur turn the TV back on by pressing the POWER button once or twice, or unplug and then replug the power cord at the AC outlet. This feature is NOT designed to prevent damage due to high power surges such as those caused by lightning, which is not covered by your warranty.

Cleaning and Care

- To avoid possible shock hazard be sure the TV is unplugged from the electrical outlet before cleaning.
- When cleaning the TV screen take care not to scratch or damage the screen surface (avoid wearing jewelry or using anything abrasive- do not use household cleaners). Wipe the front screen with a clean cloth dampened with water. Use even, easy, vertical strokes when cleaning.
- Specially designed screen cleaning kits are also available which contain anti-static cleaners and cloths designed to get into the ridges of the TV screen. If interested, ask your dealer about an optional Projection TV Screen Cleaning Kit or call our toll-free Accessory Parts ordering number 1-800-851-8885.
- Gently wipe the cabinet surfaces with a clean cloth or sponge dampened in a solution of cool clear water and a mild soap or detergent. Use a clean dry cloth to dry the wiped surfaces.
- Occasionally vacuum the ventilation holes or slots in the cabinet back.
- Never use thinners, insecticide sprays, or other chemicals on or near the cabinet, as they might cause permanent marring of the cabinet finish.

Glossary to Television Terms

Aspect Ratio * The proportions of a rectangular display screen. NTSC television has a 4:3 ratio; HDTV is 16:9.

Audio/Video Inputs * Located on the rear of the TV these connectors (RCA phono type plug) are used for the input of audio and video signals. Designed for use with VCRs (or other accessories) in order to receive higher picture resolution and offer sound connection options.

Coaxial Cable * A single solid antenna wire normally matched with a metal plug (F-type) end connector that screws (or pushes) directly onto a 75 Ohm input found on the Television or VCR.

Display * An on screen message or graphics that help the user operate and adjust TV feature controls. See On Screen Displays (OSD).

HDTV * High Definition Television which offers approximately twice the vertical/horizontal resolution of NTSC video, and sound quality approaching that of compact disc. (Usually taken to mean a picture of 1920 x 1080 pixels in a 16:9 aspect ratio.)

Identify* Method by which a remote control searches and finds an operating code for another product (such as a VCR or Cable Converter). Once the code has been "identified" then the TV remote can operate and send commands to the other product.

LED * Light Emitting Diode or indicator.

Menu * An on-screen listing of feature controls shown on the TV screen that are made available for user adjustments.

Multichannel Television Sound (MTS) * The broadcast standard that allows for stereo sound to be transmitted with the TV picture.

NTSC * National Television Standards Committee format devised for TV broadcasting signals in the 1940s (525 lines; 30Hz.)

On Screen Displays (OSD) * Refers to the wording or messages generated by the TV to help the user with specific feature controls (color adjustment, programming, etc.).

Picture -In-Picture (PIP) * Term used when two pictures are shown on the TV screen at the same time. The smaller PIP picture is supplied by a VCR (or other tuner/video playback source). The PIP picture can also be moved and swapped with the TV's main screen picture.

Programming * The procedure of adding or deleting channel numbers into the TV's memory circuits. In this way the TV "remembers" only the locally available or desired channel numbers and skips over any unwanted channel numbers.

Remote Sensor Window * A window or opening found on the TV control panel through which infrared remote control command signals are received.

RGB * Red, Green, Blue color component inputs used for connection purposes with personal computers (PCs) and other high definition video devices.

RF * Radio Frequency or modulated signal design used as the carrier for television broadcasts.

Second Audio Program (SAP) * Another or additional audio channel provided for in the Multichannel Television Sound (MTS) broadcast standard. A monaural soundtrack included within the recorded or video signal (usually containing a second language translation for the displayed programming.)

Status * Allows the user to quickly confirm what channel number is currently being viewed. Status can also be used to clear the TV of on-screen displays or information (rather than waiting for the displays to "time out" or automatically disappear from the screen).

SVGA * Super Video Graphics Array

S-Video Input * Allows direct connection of high-resolution video sources, such as a Super VHS videocassette recorder, Laser Disc player, etc. Provides improved picture resolution, sharpness, and clarity.

Twin Lead Wire * The more commonly used name for the two strand 300 Ohm antenna wire used with many indoor and outdoor antenna systems. In many cases this type of antenna wire requires an additional adapter (or balun) in order to connect to the 75 Ohm Input terminals designed into the more recent Televisions and VCRs.

Variable Audio Output * An adjustable audio output which allows for volume variations at the source.

VGA * Video Graphics Array

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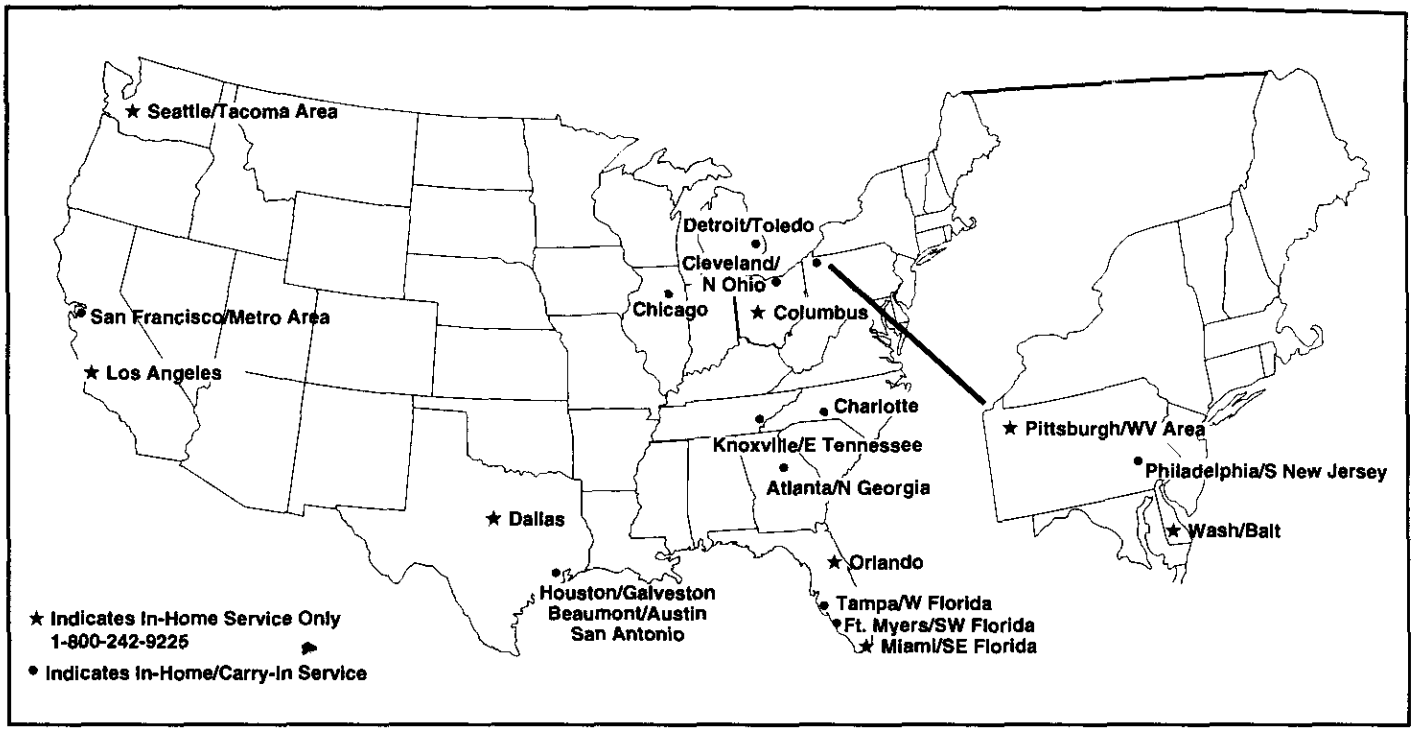
* Q/U indicates page number reference in the separate Quick Use Guide

Philips Consumer Electronics Company
Factory Service Center Locations



NOTE: If you reside in one of our Philips Factory Service Branch areas (see directory on back), you can contact the nearest Service Branch to obtain efficient and expedient repair for your product. If your product is In-Warranty, you should have proof-of-purchase to ensure No Charge Service. For Out-of-Warranty service, call the location nearest you.

NOTA: Si vous résidez dans une des régions desservies par une succursale de service après vente du fabricant Philips (voir liste ci-dessous), vous pourrez contacter la branche de service après vente la plus près de chez vous pour obtenir un service après vente rapide et efficace. Si le produit est sous garantie, il suffira de présenter une preuve d'achat pour bénéficier d'un service sans frais. Pour les produits non couverts par la garantie, contactez le centre le plus près de chez vous.

NOTA: Si Ud. reside en una de nuestras zonas para sucursales Philips de servicio al de fábrica (ver directorio más abajo), Ud. puede comunicarse con la sucursal de servicio más cercana para obtener una reparación oportuna y eficaz de su producto. Si su producto está todavía bajo garantía, Ud. debe presentar comprobante de compra para no ocasionar ningunos cargos por servicio. Para servicio después del vencimiento de la garantía, llame al lugar más cercano de los abajo indicados.

In Canada

How you can obtain efficient and expedient carry-in, mail-in, or in-home service for your product
Please contact Philips at 1-800-661-6162 (French speaking)
1-800-363-7278 (English speaking)

Au Canada

Comment obtenir le service après-vente pour les produits apportés ou envoyés par la poste à notre centre de service ou le service à domicile
Veuillez contacter philips á: 1-800-661-6162 (Francophone)
1-800-363-7278

En el Canadá

Cómo recibir servicio efficiente para su producto, en persona, por correo o a domicilio
Favor de comunicarse con Philips al: 1-800-661-6162 (francófono)
1-800-363-7278 (anglófono)

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QUALITY SERVICE IS AS CLOSE AS YOUR TELEPHONE! SIMPLY LOOK OVER THE LIST BELOW FOR THE NUMBER OF A FACTORY SERVICE CENTER NEAR YOU. YOUR PRODUCT WILL RECEIVE EFFICIENT AND EXPEDIENT CARRY-IN, MAIL-IN, OR IN-HOME SERVICE, AND YOU WILL RECEIVE PEACE OF MIND, KNOWING YOUR PRODUCT IS BEING GIVEN THE EXPERT ATTENTION OF PHILIPS' FACTORY SERVICE. AND, IF THE PHONE NUMBER LISTED FOR YOUR AREA IS LONG DISTANCE, CALL 1-800-242-9225 FOR FACTORY SERVICE.

COMMENT OBTENIR NOTRE SERVICE APRÈS VENTE RAPIDE ET EFFICACE SOIT PAR COURRIER, À DOMICILE, OU EN SE PRÉSENTANT À UN CENTRE DE SERVICE PHILIPS. PLUS DE 600 CENTRES DE RÉCEPTION DE PRODUITS À RÉPARER À TRAVERS LE PAYS: CONTACTER LE CENTRE DE SERVICE AUX CONSOMMATEURS LE PLUS PROCHE POUR SAVOIR L'EMPLACEMENT DE CES DÉPOTS DANS UN RAYON DE 50 À 75 MILES (80 KM À 120 KM) DU CENTRE DE SERVICE LOCAL.

CÓMO OBTENER UN SERVICIO OPORTUNO Y EFICIENTE POR CORREO, EN CASA O EN PERSONA PARA SU PRODUCTO A TRAVÉS DE UN CENTRO PHILIPS DE SERVICIO. MAS DE 600 SITIOS POR TODO EL PAIS PARA LA RECEPCION DE PRODUCTOS NECESITADOS DE REPARACIONES: COMUNICARSE CON EL CENTRO DE SERVICIO DE FABRICA MAS CERCANO PARA ESTOS LUGARES DENTRO DE UN RADIO DE 80 A 120 KM (50 A 75 MILLAS) DEL CENTRO DE SERVICIO LOCAL.

GEORGIA
Philips Factory Service of Georgia
200 N. Cobb Pkwy., Suite 120
Marietta, GA 30062
(770) 795-0085

FLORIDA
Philips Factory Service of Florida
1911 US Highway 301 North
Tampa, FL 33619
(813) 621-8181

WESTERN U.S.A.
Philips Factory Service Western Region
681 East Brokaw Rd.
San Jose, CA 95112
(408) 436-8566

TEXAS
Philips Factory Service of Texas
1110 N. Post Oak Rd., Suite 100
Houston, TX 77055
(713) 682-3990

CENTRAL U.S.A.
Philips Factory Service Central US
950 Keynote Circle
Brooklyn Heights, OH 44131
(216) 741-3334

MICHIGAN
Philips Factory Service of Michigan
25173 Dequindre
Madison Heights, MI 48071
(248) 544-2110

DALLAS AREA
Philips Factory Service of Dallas
415 N. Main Street, #107
Euless, TX 76040
(713) 682-3990

ILLINOIS
Philips Factory Service of Illinois
1279 W. Hamilton Pkwy.
Itasca, IL 60143
(630) 775-0990

TENNESSEE
Philips Factory Service of East Tennessee
6700 D Papermill Rd.
Knoxville, TN 37919
(423) 584-6614

MID-ATLANTIC
Philips Factory Service Mid-Atlantic
352 Dunks Ferry Rd.
Bensalem, PA 19020
(215) 638-7500

LIMITED WARRANTY

PROJECTION TELEVISION

One Year Free Labor

One Year Free Service on Parts

Two Years Free Service on Cathode Ray Tube Parts / 30 days Free Service on Projection TV Screen

This product can be repaired in-home.

WHO IS COVERED?

You must have proof of purchase to receive warranty service. A sales receipt or other document showing that you purchased the product is considered proof of purchase.

WHAT IS COVERED?

Warranty coverage begins the day you buy your product for one year thereafter (30 days for the projection TV screen), all parts will be repaired or replaced, and labor and transportation are free. From one to two years from the day of purchase, you pay for the replacement or repair of all parts except the cathode ray tube and the "Clear-Vu" lens, and for all labor and transportation charges. After two years from the day of purchase, you pay for the replacement or repair of all parts except the "Clear-Vu" lens (which is guaranteed against manufacturer's defects for the life of the product), and for all labor and transportation charges.

All parts, including repaired and replaced parts, are covered only for the original warranty period. When the warranty on the product expires, the warranty on all replaced and repaired parts also expires.

WHAT IS EXCLUDED?

Your warranty does not cover:

- labor charges for installation or setup of the product, adjustment of customer controls on the product, and installation or repair of antenna systems outside of the product.
- product repair and/or part replacement because of misuse, accident, unauthorized repair or other cause not within the control of Philips Consumer Electronics Company.
- reception problems caused by signal conditions or cable or antenna systems outside the unit.
- a product that requires modification or adaptation to enable it to operate in any country other than the country for which it was designed, manufactured, approved and/or authorized, or repair of products damaged by these modifications.
- incidental or consequential damages resulting from the product. (Some states do not allow the exclusion of incidental or consequential damages, so the above exclusion may not apply to you. This includes, but is not limited to, prerecorded material, whether copyrighted or not copyrighted.)
- a product used for commercial or institutional purposes.

WHERE IS SERVICE AVAILABLE?

Warranty service is available in all countries where the product is officially distributed by Philips Consumer Electronics Company. In countries where Philips Consumer Electronics Company does not distribute the product, the local Philips service organization will attempt to provide service (although there may be a delay if the appropriate spare parts and technical manual(s) are not readily available).

MAKE SURE YOU KEEP...

Please keep your sales receipt or other document showing proof of purchase. Attach it to this owner's manual and keep both nearby. Also keep the original box and packing material in case you need to return your product.

BEFORE REQUESTING SERVICE...

Please check your owner's manual before requesting service. Adjustments of the controls discussed there may save you a service call.

TO GET WARRANTY SERVICE...

Repair must be performed by an authorized service center or a factory service center. *If you do not live near a factory service center,* contact your dealer. If your dealer is an authorized service center, he will arrange repair. If your dealer is not an authorized service center, he will direct you to the authorized service center engaged by him to service the products he sells.

(In U.S.A., Puerto Rico and U.S. Virgin Islands, all implied warranties, including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to the duration of this express warranty. But, because some states do not allow limitations on how long an implied warranty may last, this limitation may not apply to you.)

(In Canada, this warranty is given in lieu of all other warranties. No other warranties are expressed or implied, including any implied warranties of merchantability or fitness for a particular purpose. Philips is not liable under any circumstances for any direct, indirect, special, incidental or consequential damages, howsoever incurred, even if notified of the possibility of such damages.)

IF YOU HAVE QUESTIONS...

Please contact Philips at:

1-800-661-6162 (French Speaking)
1-800-363-7278 (English Speaking)

REMEMBER...

Please record the model and serial numbers found on the product below. Also, please fill out and mail your warranty registration card promptly. It will be easier for us to notify you if necessary.

MODEL # _____

SERIAL # _____

This warranty gives you specific legal rights. You may have other rights which vary from state/province to state/province.

Philips Service Company, P.O. Box 2976, Longview, Texas 75606, (903) 242-4800

3135 015 21401